

VPDES PERMIT PROGRAM FACT SHEET

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a MAJOR INDUSTRIAL permit.

1. PERMIT NO.: VA0004162 EXPIRATION DATE: November 15, 2015
2. FACILITY NAME AND LOCAL MAILING ADDRESS FACILITY LOCATION ADDRESS (IF DIFFERENT)
- International Paper - Franklin Mill same
34040 Union Camp Drive
Franklin, VA 23851
- CONTACT AT FACILITY: CONTACT AT LOCATION ADDRESS
NAME: Kyle Duffy NAME: Raye Moore
TITLE: EHS Manager TITLE:
PHONE: (757) 569-4536 PHONE: (757) 635-9159
3. OWNER CONTACT: (TO RECEIVE PERMIT) CONSULTANT CONTACT:
NAME: Kyle Duffy NAME:
TITLE: EHS Manager FIRM NAME:
COMPANY NAME: (IF DIFFERENT) ADDRESS:
ADDRESS: 34040 Union Camp Drive
Franklin, VA 23851
PHONE: (757) 569-4536 PHONE: ()
EMAIL: EMAIL:
4. PERMIT DRAFTED BY: DEO, Water Permits, Regional Office
Permit Writer(s): D.L. Thompson Date(s): 6-2015
Reviewed By: Deanna Austin DOA Date(s): 7/22/15 - 8/20/15, 9/14/15
5. PERMIT ACTION:
- () Issuance (X) Reissuance () Revoke & Reissue () Owner Modification
() Board Modification () Change of Ownership/Name [Effective Date:]
6. SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:
- | | |
|----------------------|---|
| Attachment <u>1</u> | Site Inspection Report/Memorandum |
| Attachment <u>2</u> | Discharge Location/Topographic Map |
| Attachment <u>3</u> | Schematic/Plans & Specs/Site Map/Water Balance |
| Attachment <u>4</u> | TABLE I - Discharge/Outfall Description |
| Attachment <u>5</u> | TABLE II - Effluent Monitoring/Limitations |
| Attachment <u>6</u> | Effluent Limitations/Monitoring Rationale/Suitable
Data/Antidegradation/Antibacksliding |
| Attachment <u>7</u> | Special Conditions Rationale |
| Attachment <u>8</u> | Material Storage |
| Attachment <u>9</u> | Toxics Monitoring/Toxics Reduction/WET Limit Rationale |
| Attachment <u>10</u> | Receiving Waters Info./Tier Determination/STORET Data/Stream
Modeling/303(d) Listed Segments |
| Attachment <u>11</u> | TABLE III(a) and TABLE III(b) - Change Sheets |
| Attachment <u>12</u> | NPDES Industrial Permit Rating Worksheet |
| Attachment <u>13</u> | Public Participation/Pertinent Correspondence |

APPLICATION COMPLETE: June 19, 2015

7. PERMIT CHARACTERIZATION: (Check as many as appropriate)

<input checked="" type="checkbox"/> Existing Discharge	<input checked="" type="checkbox"/> Effluent Limited
<input type="checkbox"/> Proposed Discharge	<input checked="" type="checkbox"/> Water Quality Limited
<input type="checkbox"/> Municipal	<input type="checkbox"/> WET Limit
SIC Code(s)	<input type="checkbox"/> Interim Limits in Permit
<input checked="" type="checkbox"/> Industrial	<input type="checkbox"/> Interim Limits in Other Document
SIC Code(s) 2611, 2621, 2679	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> POTW	<input type="checkbox"/> Site Specific WQ Criteria
<input type="checkbox"/> PVOTW	<input type="checkbox"/> Variance to WQ Standards
<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Water Effects Ratio
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Discharge to 303(d) Listed Segment
<input type="checkbox"/> State	<input checked="" type="checkbox"/> Toxics Management Program Required
<input type="checkbox"/> Publicly-Owned Industrial	<input type="checkbox"/> Toxics Reduction Evaluation
	<input checked="" type="checkbox"/> Storm Water Management Plan
	<input type="checkbox"/> Pretreatment Program Required
	<input checked="" type="checkbox"/> Possible Interstate Effect
	<input type="checkbox"/> CBP Significant Dischargers List

8. Outfall No(s). Receiving Stream

001 (and internal
Outfall 103)

Blackwater River
River Mile: 5ABLW000.62
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 1
Class: II
Special Standard(s): NEW-21
7-Day/10-Year Low Flow: 1.36 MGD (Nov-Mar)
1-Day/10-Year Low Flow: 0.22 MGD (Nov-Mar)
30-Day/5-Year Low Flow: 29.3 MGD (Nov-Mar)
Harmonic Mean Flow: 702.2 MGD (Nov-Mar)
Tidal: YES

002

Blackwater River
River Mile: 5ABLW0013.73
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 1
Class: II
Special Standard: NEW-21
7-Day/10-Year Low Flow: 1.36 MGD (Nov-Mar)
1-Day/10-Year Low Flow: 0.22 MGD (Nov-Mar)
30-Day/5-Year Low Flow: 29.3 MGD (Nov-Mar)
Harmonic Mean Flow: 702.2 MGD (Nov-Mar)
Tidal: YES

006, 007, 010,
012, 013, 014

Washole Creek
River Mile: 5AKNG000.04
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 2
Class: VII
Special Standard: NEW-21
7-Day/10-Year Low Flow: 0 MGD
1-Day/10-Year Low Flow: N/A MGD
30-Day/5-Year Low Flow: N/A MGD
Harmonic Mean Flow: N/A MGD
Tidal: NO

008, 009, 011

Kingsale Swamp
River Mile: 5AKNG004.66
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 2
Class: VII
Special Standard: NEW-21
7-Day/10-Year Low Flow: 0 MGD
1-Day/10-Year Low Flow: N/A MGD
30-Day/5-Year Low Flow: N/A MGD
Harmonic Mean Flow: N/A MGD
Tidal: NO

015

Beaverdam Swamp
River Mile:
Basin: Chowan and Dismal Swamp
Subbasin: Chowan River
Section: 2
Class: VII
Special Standard: NEW-21
7-Day/10-Year Low Flow: 0 MGD
1-Day/10-Year Low Flow: N/A MGD
30-Day/5-Year Low Flow: N/A MGD
Harmonic Mean Flow: N/A MGD
Tidal: NO

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

Existing industrial discharge resulting from the manufacture of fluff pulp, tissue and recycled (converted) papers, which are generated from raw timber, purchased wood chips and sorted office waste paper from the fiber recycling plant. Production facilities, administrative offices and warehousing operations are located on the mill site. International Paper - Franklin Mill operates one machine which produces fluff pulp. Operations include a pulp mill, in addition to a new process of producing tissue by TAK Investments, Inc., which includes a deinking facility and a tissue manufacturing and converting process to manufacture recycled tissue. A point source discharge of process wastewater from all ongoing operations occurs during a two month period at outfall 001.

10. **LICENSED OPERATOR REQUIREMENTS:** () No (X) Yes Class: I

11. **RELIABILITY CLASS:** Industrial Facility - NA

12. **SITE INSPECTION DATE:** Nov 6-7, 2013 **REPORT DATE:** December 10, 2013

Performed By: Clyde Gantt

SEE ATTACHMENT 1

13. **DISCHARGE(S) LOCATION DESCRIPTION:** Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Outfall 001: Name of Topo: Riverdale Quadrant No.: 05C

Outfalls 002, 006, Name of Topo: Franklin Quadrant No.: 05B
007, 010, 012,
013, 014, 015

Outfalls 008, Name of Topo: Holland Quadrant No.: 05A
009, 011

SEE ATTACHMENT 2

14. ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.

SEE ATTACHMENT 3

15. DISCHARGE DESCRIPTION: SEE ATTACHMENT 4

16. COMBINED TOTAL FLOW:

TOTAL: 126 MGD (for public notice)

PROCESS FLOW: 125 MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: 1 MGD (Est.)

DESIGN FLOW: MGD (MUN.)

17. STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:
(Check all which are appropriate)

☒ State Water Control Law
☒ Clean Water Act
☒ VPDES Permit Regulation (9 VAC 25-31-10 et seq.)
☒ EPA NPDES Regulation (Federal Register)
☒ EPA Effluent Guidelines (40 CFR 133 or 400 - 471)
☒ Water Quality Standards (9 VAC 25-260-5 et seq.)
☒ Wasteload Allocation from a TMDL or River Basin Plan

18. EFFLUENT LIMITATIONS/MONITORING: Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. EFFLUENT LIMITATIONS/MONITORING RATIONALE: Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

N/A

SUITABLE DATA: In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDEGRADATION REVIEW: Provide all appropriate information/calculations for the antidegradation review.

Outfall 001 is maintained as a Tier 1 water based on discharges to impaired stream. Outfalls 008, 009, and 011 discharge to intermittent streams and therefore are a Tier 1. With the receiving stream classification as tier 1, no further review is needed. All other outfalls a Tier cannot be determined since the receiving streams are Category 4C with Aquatic Life Use impairments due to naturally low dissolved oxygen.

Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit. Final effluent concentration limitations for TSS and BOD at outfall 001 increased with this reissuance, but these limitations are production based limits based on Federal Effluent Guidelines and are not subject to antibacksliding requirements. Annual load limitations based on a Water Quality Management Plan remain in effect for TSS and BOD at outfall 001 and have not changed.

SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 9

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

N/A

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

SEE ATTACHMENT 8

24. RECEIVING WATERS INFORMATION: Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.)]. Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied. Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

25. 305(b)/303(d) Listed Segments: Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

All Outfalls discharge to impaired 303d listed streams.

Outfall 001 discharges to the impaired lower Blackwater stream segment, VAT-K36R_BLW05A08. This segment is impaired for Aquatic Life Use - benthics and naturally low DO and for Fish Consumption Use - mercury.

Outfall 002 discharges to the middle Blackwater impaired segment, VAT-K36R_BLW03A08. This segment is impaired for Aquatic Life Use - naturally occurring low DO and Fish Consumption Use -mercury.

Outfalls 6,7,10 and 12-14 discharge to impaired segment VAT-K36R_BLW04A08. This segment is impaired for Aquatic Life Use - naturally occurring low DO, Recreation Use - Ecoli and Fish Consumption Use -mercury.

Outfalls 8, 9 and 11 discharge to impaired Unnamed tribs to Blackwater (VAT-K36R_ZZZ01A00) and 015 to impaired Blackwater segment, VAT-K36R_BLW02C10. These segments are impaired for Fish Consumption Use -mercury.

A Natural Conditions assessment was completed to confirm the DO impairments are due to natural conditions and therefore the development of a TMDL is not required. (Blackwater Dissolved Oxygen Assessment for Blackwater Swamp Waters: Approved 4/8/2010 *See TMDL_Attachment_1) The current Assessment Category is "4C - Not needing a TMDL". During the next Triennial Review, this section of the Blackwater River is proposed to be changed from a Class II to a Class VII swamp water. Part of the Natural Conditions process is to determine anthropogenic impacts, if any, to the impairments. IP VA0004162 was identified as a point source discharging into the Blackwater River. Even so, data from the facility showed that it was very well controlled and not impacting the DO levels in the River. The D.O. condition is further addressed in Special Condition #14 "In-stream D.O. Monitoring During the Discharge Season, November-March". This condition, which was agreed upon during previous permit reissuance's provides in-stream WQ protection for D.O.; no additional monitoring is proposed at this time.

SEE ATTACHMENT 10

the original development of this permit

26. CHANGES TO PERMIT: Use TABLE III(a) to record any changes from the previous permit and the rationale for those changes. Use TABLE III(b) to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 11

27. NPDES INDUSTRIAL PERMIT RATING WORKSHEET:

TOTAL SCORE: 140 SEE ATTACHMENT 12

28. DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from DEQ planning.

29. PUBLIC PARTICIPATION: Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit. Letter dated June 17, 2015.

The DSS reviewed the application and by Memorandum dated 6/22/15; this project will not affect shellfish growing waters.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Fish & Wildlife (8-13-15) and DCR (8-25-16) provided review of the application for T&E. No comments were offered other than a request to send appl to NC review for T&E.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

PUBLIC NOTICE INFORMATION:

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Debra L. Thompson at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2162 E-mail: debra.thompson@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:

This permit will continue to address/incorporate the new process at the repurposed International Paper Franklin Mill. The new process continues and is currently still at Phase I production levels and includes, a deinking facility, tissue manufacturing and converting process by TAK Investments, Inc. Production is proposed to increase over time in four phases. Therefore, final effluent limitations at outfall 001 for BOD and TSS are presented in the permit and are calculated in four phases corresponding to the production rate and effluent flow associated with the four implementation phases of the new process. Currently, the new process is still operating within phase I.

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

Doug Domenech
Secretary of Natural Resources

5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000
www.deq.virginia.gov

David K. Paylor
Director

Maria R. Nold
Regional Director

December 10, 2013

Via Email

Ms. Jacquelyn Taylor
International Paper
34030 Union Camp Drive
Franklin, VA 23851

Re: Inspection Report
International Paper (VA0004162)

Dear Ms. Taylor:

Enclosed is a copy of the report prepared for the inspection conducted at International Paper on November 6-7, 2013. Please note the requirement and recommendation cited in the "Compliance Recommendations for Action" in the report summary.

If you have any questions regarding this report, please feel free to contact me at the above address, telephone (757) 518-2114 or email clyde.gantt@deq.virginia.gov.

Sincerely,

Clyde K. Gantt
VPDES/VPA Permit Inspector

Note: This letter is not intended as a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq* (APA).

Enclosure

cc: DEQ/TRO: File

1-2

Facility:	INTERNATIONAL PAPER
County/city:	FRANKLIN

VPDES NO.	VA0004162
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**DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTEWATER FACILITY
INSPECTION REPORT
PART 1**

Inspection date:	November 6-7, 2013	Date form completed:	???					
Inspection by:	Clyde Gantt	Inspection agency:	DEQ/TRO					
Time spent:	20 Hours	Announced Inspection:	[] Yes [X] No					
Reviewed by: Kenneth T. Raum / 11-25-13 <i>KTR</i>		Photographs taken at site? [X] Yes [] No						
Present at inspection:	Raye Moore – Env. Eng., (757) 635-9159, raye.moore@ipaper.com							
FACILITY TYPE:		FACILITY CLASS:						
() Municipal		(X) Major						
(X) Industrial		() Minor						
() Federal		() Small						
() VPA/NDC		() High Priority () Low Priority						
TYPE OF INSPECTION:								
Routine	X	Reinspection	Compliance/assistance/complaint					
Date of previous inspection:		January 25, 2011	Agency: DEQ/TRO					
Outfall 103 Last Quarter Average: Effluent	BOD ₅ (mg/l)	??	TSS (mg/l)	??	Flow (MGD)	??	NH ₃ (mg/l)	??
	Other:							
COPIES TO: (X) DEQ/TRO; (X) OWNER; () OPERATOR; () Other:								

PLANT OPERATION AND MAINTENANCE												
1.	Class/number of licensed operators:	I	1	II	0	III	0	IV	0	Trainee	0	
2.	Hours per day plant manned?	??										
3.	Describe adequacy of staffing	GOOD				AVERAGE		X		POOR		
4.	Does the plant have an established program for training personnel							YES		X	NO	
5.	Describe the adequacy of training	GOOD				AVERAGE		X		POOR		
6.	Are preventative maintenance tasks scheduled							YES		X	NO	
7.	Describe the adequacy of maintenance	GOOD				AVERAGE		X		POOR		
8.	Does the plant experience any organic/hydraulic overloading?							YES			NO	
	If yes, identify cause/impact on plant											
9.	Any bypassing since last inspection?							YES			NO	
10.	Is the standby electrical generator operational?					YES		NO			NA	
11.	When was the cross connection last tested on the potable supply?							N/A				
12.	Is the WWTP alarm system operational?					YES		X		NO		
13.	Is sludge disposed in accordance with an approved SMP					YES		NO			NA	
OVERALL APPEARANCE OF FACILITY					GOOD		AVERAGE		X		POOR	

COMMENTS:	
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PLANT RECORDS

WHICH OF THE FOLLOWING RECORDS DOES THE PLANT MAINTAIN?

1.	Operational logs for each process unit	YES	X	NO		NA	
	Instrument maintenance and calibration	YES	X	NO		NA	
	Mechanical equipment maintenance	YES	X	NO		NA	

WHAT DOES THE OPERATIONAL LOG CONTAIN

2.	Visual Observations		Flow Measurement	X	Laboratory Results		X
	Process Adjustments	X	Control Calculations		Other?		

COMMENTS:

WHAT DO THE MECHANICAL EQUIPMENT RECORDS CONTAIN?

3.	MFG. Instructions	X	As Built Plans/specs		Spare Parts Inventory		X
	Lube Schedules	X	Other?		Equipment/parts Suppliers		

COMMENTS:

WHICH OF THE FOLLOWING RECORDS ARE AT THE PLANT & AVAILABLE TO PERSONNEL?

5.	Equipment Maintenance Records	X	Industrial Contributor Records				
	Operational Log	X	Sampling/testing Records	X	Instrumentation Records		X
6.	Records not normally available to personnel at their location:						
7.	Were the records reviewed during the inspection				YES	X	NO
8.	Are records adequate and the O&M manual current?				YES	X	NO
9.	Are the records maintained for the required 3-year time period				YES	X	NO

COMMENTS:

1-5

SAMPLING

1.	Are sampling locations capable of providing representative samples?	YES	X	NO	
2.	Do sample types correspond to VPDES permit requirements?	YES	X	NO	
3.	Do sampling frequencies correspond to VPDES permit requirements?	YES	X	NO	
4.	Does plant maintain required records of sampling?	YES	X	NO	
5.	Are composite samples collected in proportion to flow?	YES		NO	X
6.	Are composite samples refrigerated during collection?	YES		NO	X
7.	Does the plant run operational control tests?	YES	X	NO	

COMMENTS:

TESTING

1.	Who performs the testing?	Plant	X	Central Lab		Commercial Lab	X
	Name: River D.O. monitoring by Universal Labs, Routine Analysis by J.R. Reed Labs, Dioxin by Columbia Analytical Services.						

IF THE PLANT PERFORMS ANY TESTING, PLEASE COMPLETE QUESTIONS 2-4

2.	Which total residual chlorine method is used?	N/A			
3.	Does plant appear to have sufficient equipment to perform required tests?	YES	X	NO	
4.	Does testing equipment appear to be clean and/or operable?	YES	X	NO	

COMMENTS:

FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY

1.	Is the production process as described in permit application? If no, describe changes in comments section.	YES	X	NO		NA	
2.	Are products/production rates as described in the permit application? If no list differences in comments section.	YES	X	NO		NA	
3.	Has the Agency been notified of the changes and their impact on plant effluent? Date agency notified:	YES		NO		NA	X

COMMENTS:

PROBLEMS IDENTIFIED AT LAST INSPECTION:		CORRECTED	NOT CORRECTED
	None		

SUMMARY

INSPECTION COMMENTS:

1	I arrived on site and met with Mr. Moore after checking in at the Guard House. I reviewed the SWPPP and associated documents, the BMP Plan and the 2012 Blackwater River D.O. monitoring. The BMP plan appeared adequate. The D.O. monitoring met permit requirements for the discharge.
2	The SWPPP, required by the permit to be implemented by Nov. 10, 2013 was in the final stages of completion. It had not yet been signed. I made some recommendations regarding potential pollutants.
3	The quarterly visual and site inspections were available and up to date.
4	<p>After the document review, Mr. Moore and I inspected the stormwater outfalls and drainage areas. My comments are as follows:</p> <p>002 – This drains the railroad tracks on the north side of the mill. Chemicals are unloaded from railcars in the area. There is a constant groundwater flow from the outfall. No problems were noted.</p> <p>006/007 – These outfalls receive runoff from along the railroad tracks between Washhole Creek and the treatment ponds. Both discharge into Washhole Creek. There was a flow of groundwater from outfall 007. No problems were noted.</p> <p>008 – Landfill sediment basin #1. Low volume discharge. No problems noted.</p> <p>009 - Landfill sediment basin #3. Basin full of aquatic plants. No problems noted.</p> <p>011 – Landfill sediment basin #2. No problems noted.</p> <p>012/013 – Truck parking lot east of mill. There is a small sediment basin for outfall 013. No problems noted.</p> <p>014 - Truck parking lot off of Union Camp Drive (Rt. 656). The lot is graded towards the north, then the northeast corner. There is a rip-rap berm and small sediment basin. The outfall is to the ditch along the road. I.P. staff has determined that all of the truck lots are substantially similar and only outfall 014 is monitored.</p> <p>Stormwater in the mill area is all captured and pumped to the treatment ponds.</p>
5	On November 7, I returned to the facility. Mr. Moore and I inspected the wastewater treatment facilities. Only one clarifier is in use due to lower flows. Solids are dewatered with filter presses as needed and used as cover in the I.P. landfill. The clarifier discharge flows through a long canal to the aerated pond. Wastewater in the aerated pond is pumped to the off-site "C" and "D" ponds prior to discharge.
6	The "C" and "D" ponds were not inspected. When there is a discharge in January, the ponds should be inspected and the discharge sampled.

COMPLIANCE RECOMMENDATIONS FOR ACTION:

1	The facility must be evaluated each year for unauthorized discharges. The evaluation must be conducted during dry weather. Documentation should include the date, evaluator and any authorized or unauthorized non-stormwater discharges.
2	It is recommended that the quarterly site inspections focus more on the stormwater BMPs in use and their effectiveness.

STORMWATER MANAGEMENT				
Quarterly Visual Monitoring. Results available? PI, A.1.a	YES	X	NO	
If Benchmark Monitoring is required, is it performed correctly and documented? PI.A.1.b.(1), PI.A.2.b	YES	N/A	NO	
Is Storm event data documented for each monitoring event? PI.A.2.c	YES	X	NO	
DMR submitted as required? PI.A.1.b.(3)	YES	N/A	NO	
Results and records available from all monitoring available? PII.B.1 & 2	YES	X	NO	
If Benchmark Monitoring exceeds the benchmark values was the SWP3 reviewed and modified as necessary? P1.A.5	YES	N/A	NO	
All corrective actions as are result from Inspections, CSCE, local state, federal officials documented and signed as required by Part II.K. PI.A.5.b	YES	N/A	NO	
Have changes to the site added/deleted Outfalls? SWP3 and Map updated? PI.B.9	YES	N/A	NO	
Stormwater Pollution Prevention Plan available, updated and signed? PIII.A, (Deadline for Plan), PIII.F.1 (Signature and location) PIII.G (Updated)	YES	X	NO	
Outfalls Identified in SWP3? Site Map with Drainage and Flows available? PIII.B.2.c.1-12	YES	X	NO	
Oil or other Hazardous Spills? PIII.B.4	YES	X	NO	
Housekeeping and Preventive Maintenance? PIII.B.6.b.(1) & (3)	YES	X	NO	
Routine Inspections performed? (1/3M) PIII.B.6.b.(5)	YES	X	NO	
Employee Training (Scheduled?) PIII.B.6.b.(6)	YES	X	NO	
Comprehensive Site Compliance Evaluation and Report. Certification of Compliance or issues of non-compliance? Signed? PIII.E.3	YES	X	NO	
Annual evaluation for unauthorized discharges? PIII.E.1.h	YES		NO	X
Section 313 chemicals addressed?		X		

UNIT PROCESS:

SCREENING

				YES	NO	NA
1.	Number of manual units	1				
2.	Number of mechanical units	1				
3.	Number manual units in operation	0				
4.	Number of mechanical units in operation	1				
	Bypass channel provided			X		
5.	Bypass channel in use				X	
6.	Area adequately ventilated			X		
7.	Alarm system for equipment failure and/or overloads			X		
8.	Proper flow distribution between units					X
9.	How often are units checked and cleaned	1 / Shift				
10.	Cycle of operation	Automatic				
11.	Volume of screenings removed	2.5 yrd ³ / Month				
GENERAL CONDITION:		GOOD		FAIR	X	POOR

COMMENTS:

UNIT PROCESS:

PUMP STATION

YES

NO

NA

PUMP CHARACTERISTICS

1.	Name of station	Main Mill / #2 Pump Station		
2.	Number of pumps?	5 at main / 2 at #2		
3.	Type:	3 variable rate & 2 fixed rate / 2 fixed rate		
4.	Rated capacity:	Not checked		

FOLLOWING EQUIPMENT OPERABLE

5.	All pumps	X		
6.	Ventilation			X
7.	Control equipment	X		
8.	Sump pump			X
9.	Seal water system	X		

ALARM SYSTEM

10.	Type:	Local	X	Telemetric	X	
11.	Conditions monitored:	High water level	X			
		High liquid level in dry well				X
		Main electric power	X			
		Auxiliary electric power			X	
		Failure of pumps to start			X	
		Test function			X	
		Other:				
22.	Backup for alarm system operational?					X
23.	Alarm signal reported to (identify):	Treatment Plant/Guard House				
29.	How often is the station checked?	1/Shift				

GENERAL CONDITION:

GOOD

FAIR

X

POOR

COMMENTS:

The pumps at both stations are outside, no ventilation is needed. The facility has two sources of electrical power. It is produced by the mill and there is a feed from Dominion Power.
#2 Pump station is for the ASB Pond discharge.

1-10

UNIT PROCESS:

SEDIMENTATION

	PRIMARY	X	SECONDARY		TERTIARY		YES	NO	NA	
1.	Number of units				2					
2.	Number units in operation				1					
3.	Proper flow distribution between units								X	
4.	Sludge collection system working properly?						X			
5.	Signs of short circuiting and/or overloads							X		
6.	Effluent weirs level						X			
7.	Effluent weirs clean						X			
8.	Scum collection system working properly								X	
9.	Influent/effluent baffle system working properly						X			
10.	Chemical Used	None				Chemical Addition				
11.	Effluent characteristics				Reddish Brown					
GENERAL CONDITION:		GOOD			FAIR		X	POOR		

COMMENTS:

UNIT PROCESS:

PRESSURE FILTRATION (SLUDGE)

						YES	NO	NA	
1.	Number of units		2						
2.	Number units in operation		0						
3.	Amount of cake produced	150 yrd ³ /day							
4.	Filter run time	6-8 hrs/day							
5.	Percent solids in influent	Unknown							
6.	Percent solids in discharge	35 %							
7.	Sludge pumping?	Manual	X	Automatic					
8.	Chemical feed	Manual	X	Automatic					
9.	Condition chemical used:	Polymer		Dose:	30 gal/day				
10.	Recirculating system included on acid wash cycle?								X
11.	Signs of overloading?							X	
GENERAL CONDITION:		GOOD			FAIR		X	POOR	
COMMENTS:									

UNIT PROCESS:

AERATED STABILIZATION BASIN (ASB POND)

												YES	NO	NA					
1.	Type	Aerated	X	Unaerated		Polishing													
2.	Number of cells		3																
3.	Number cells in operation		3																
	Operation of system																		
4.	Series		X	Parallel			Other:												
	Color							Light Brown											
5.	Gray		Brown		Green	X	Other:												
	EVIDENCE OF THE FOLLOWING PROBLEMS:																		
	Vegetation in lagoon or dikes?													X					
	Rodents burrowing on dikes?													X					
	Erosion?													X					
	Sludge bars?													X					
	Excessive foam?													X					
6.	Floating material?													X					
7.	If aerated, are lagoon contents mixed adequately?												X						
8.	If aerated, is aeration system operating properly?												X						
9.	Odors:	Septic		Earthy		None	X	Other:											
10.	Fencing intact?												X						
11.	Grass maintained properly?												X						
12.	Level control valves working properly?														X				
13.	Effluent discharge elevation?				Top		Middle		Bottom	X									
14.	Freeboard		10 Feet																
15.	Appearance of effluent?				GOOD		FAIR		POOR							X			
	Are monitoring wells present?												X						
	Are wells adequately protected from runoff?														X				
x	Are caps on and secured?														X				

GENERAL CONDITION:

GOOD

FAIR

X

POOR

COMMENTS:

There are two "curtains" that divide the pond into three cells. There was no discharge during the inspection. The monitoring wells were not inspected.



Photo #1. ASB Pond, looking north.

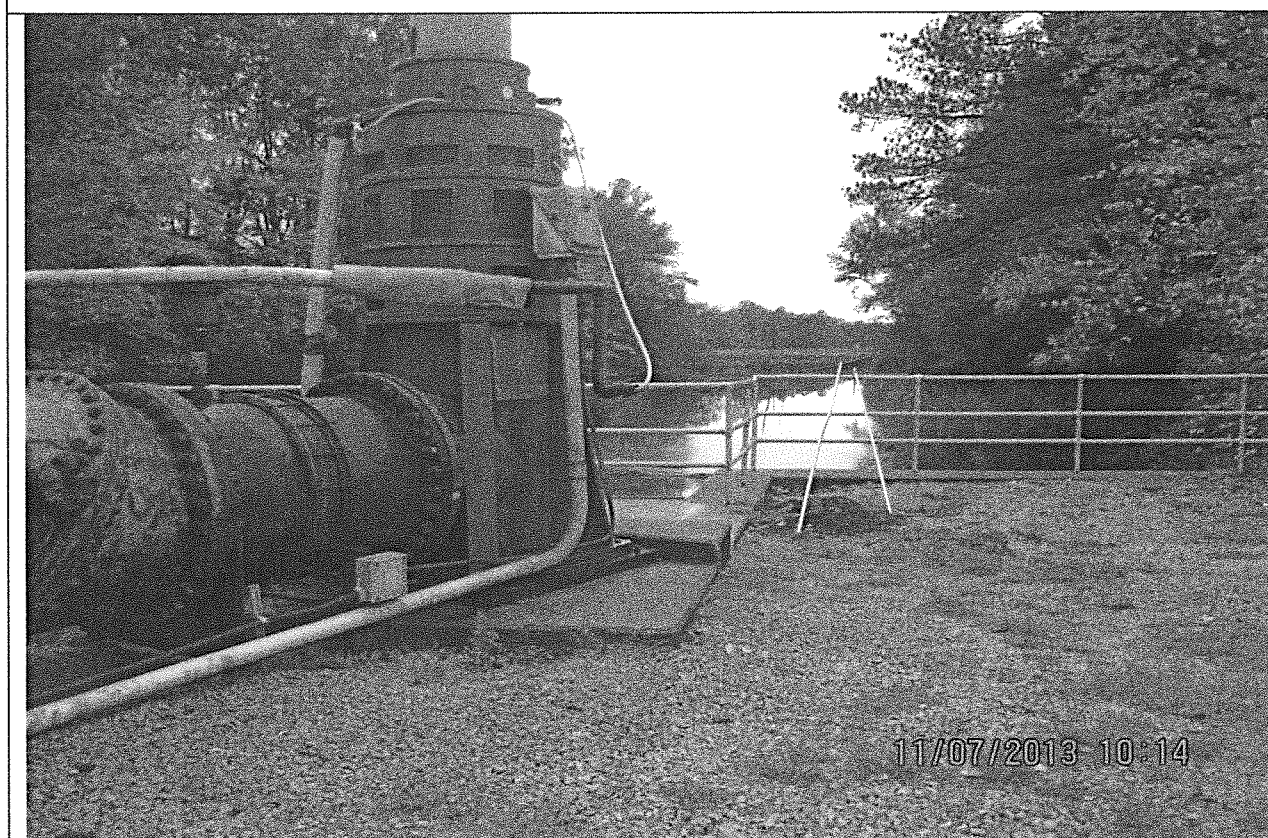


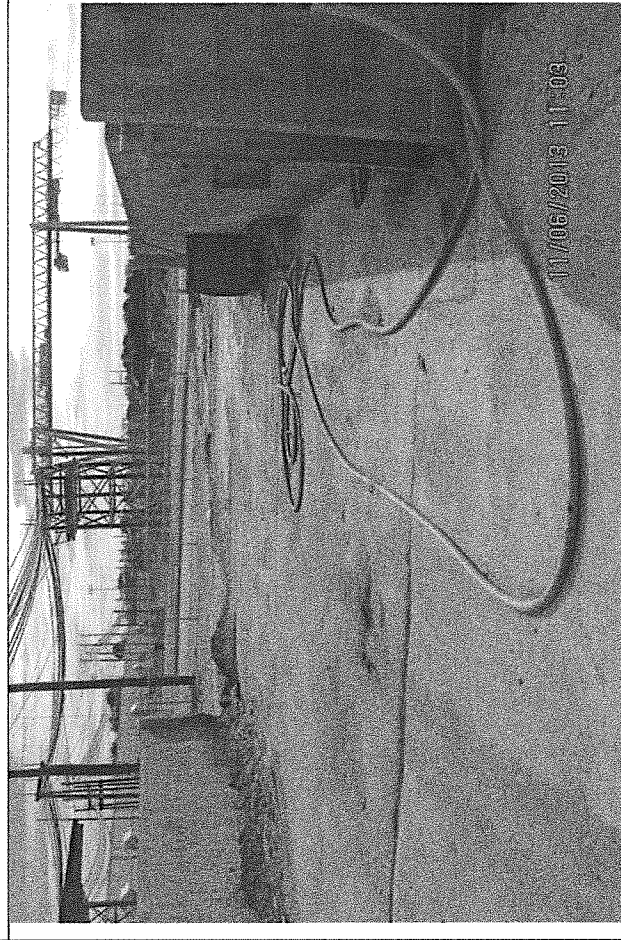
Photo #2. ASB Pond discharge canal and one the discharge pumps.



Photo #1. Wood processing area on west side of plant.



Photo #2. Outfall 002; drainage from railroad tracks.



Photo#3. Vehicle wash rack with discharge to treatment ponds.



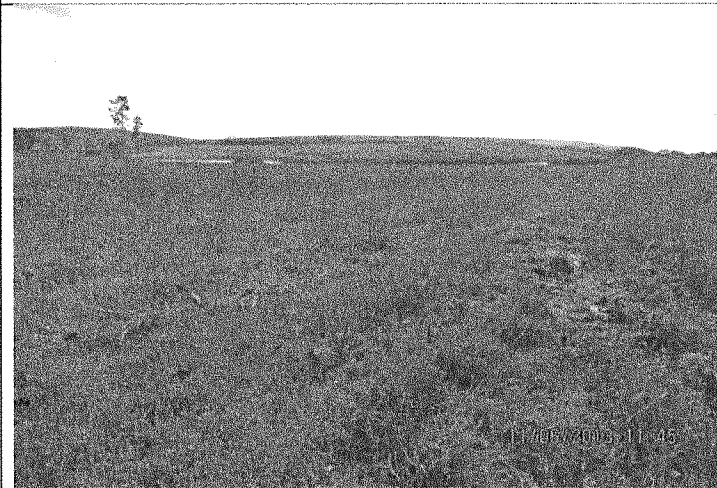
Photo #4. Outfall 006; drainage from tracks near treatment plant.



Photo #1. Outfall 007. Railroad track drainage to Washhole Creek.



Photo #2. Outfall 008; Drainage from west side of landfill & basin #1.



Photo#3. Looking across sediment basin #3 to the landfill.

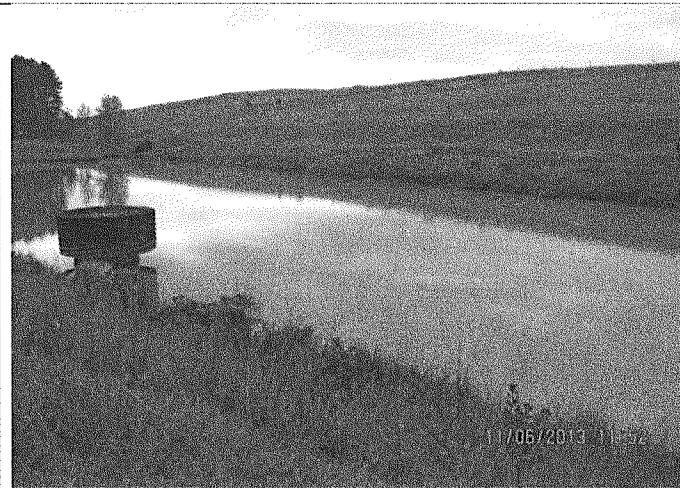


Photo #4. Sediment basin #2, to outfall 011 and south side of landfill.

Deleted: i

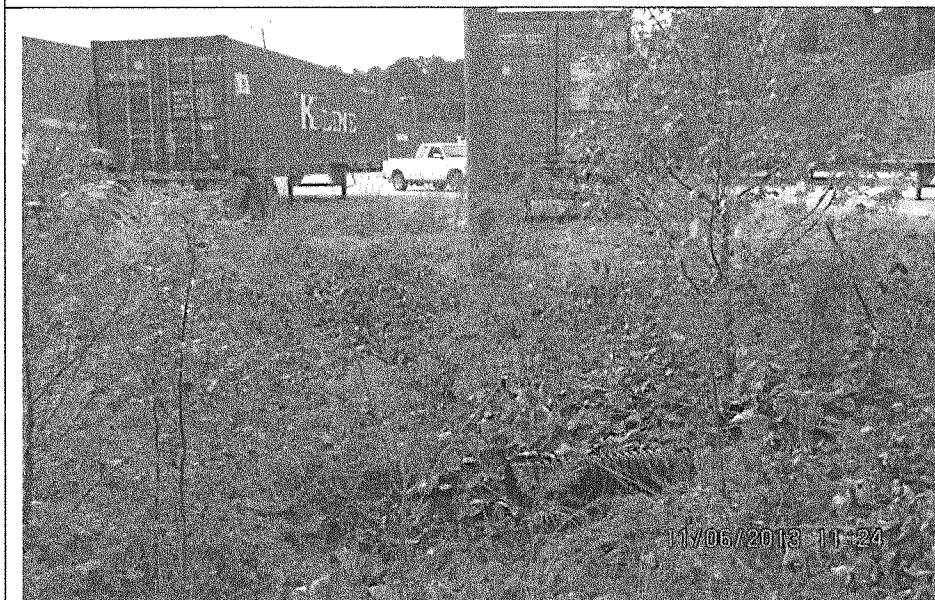
1-14



Photo #1. Entrance to outfall 012; drainage from mill truck parking area.



Photo #2. Outfall 013; drainage from mill truck parking area.



Photo#3. Outfall 014; truck parking area near Rt. 260 & Union Camp Dr.

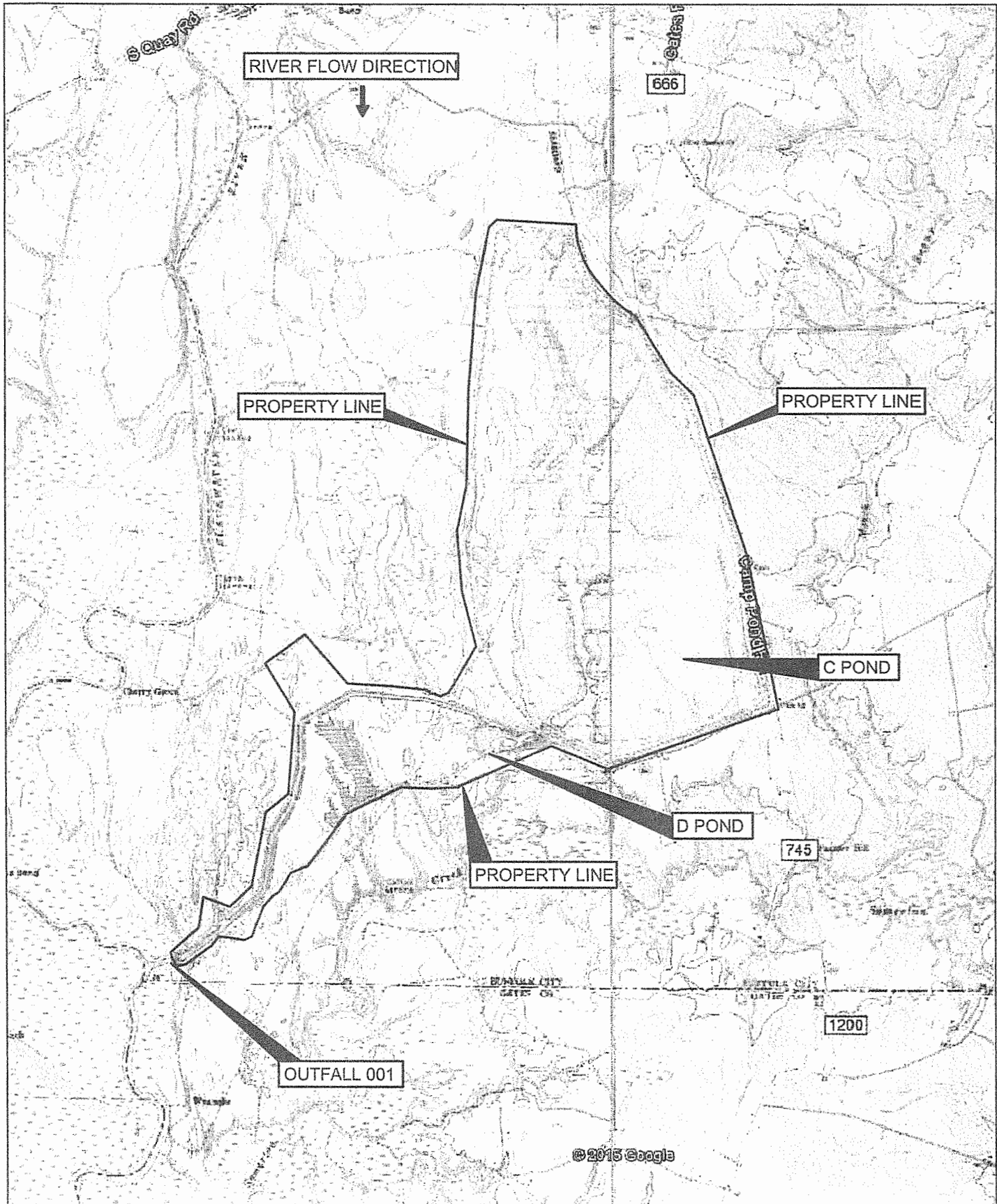


Photo #4. WWTP clarifier.

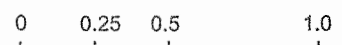
1-15

ATTACHMENT 2

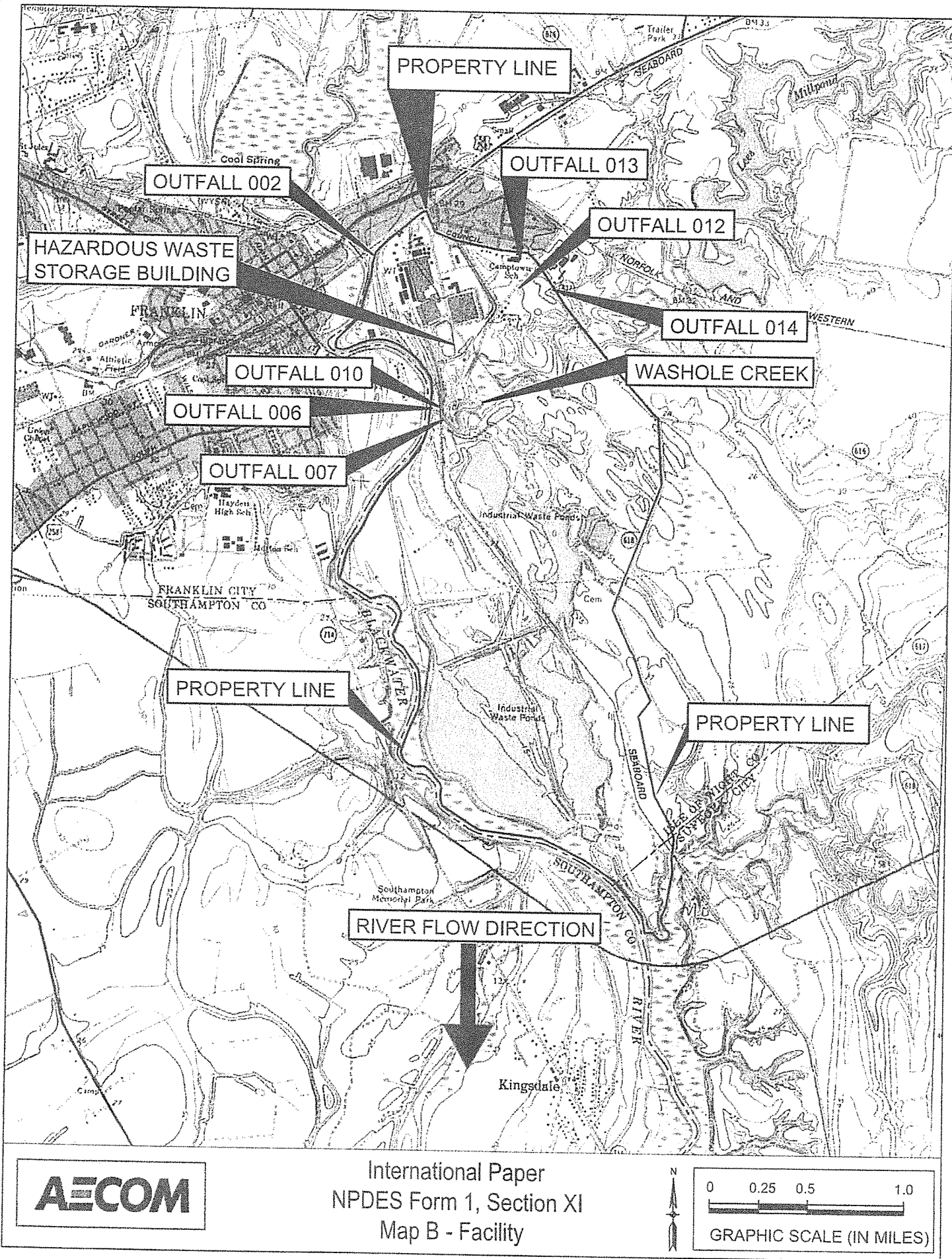
DISCHARGE LOCATION/TOPOGRAPHIC MAP

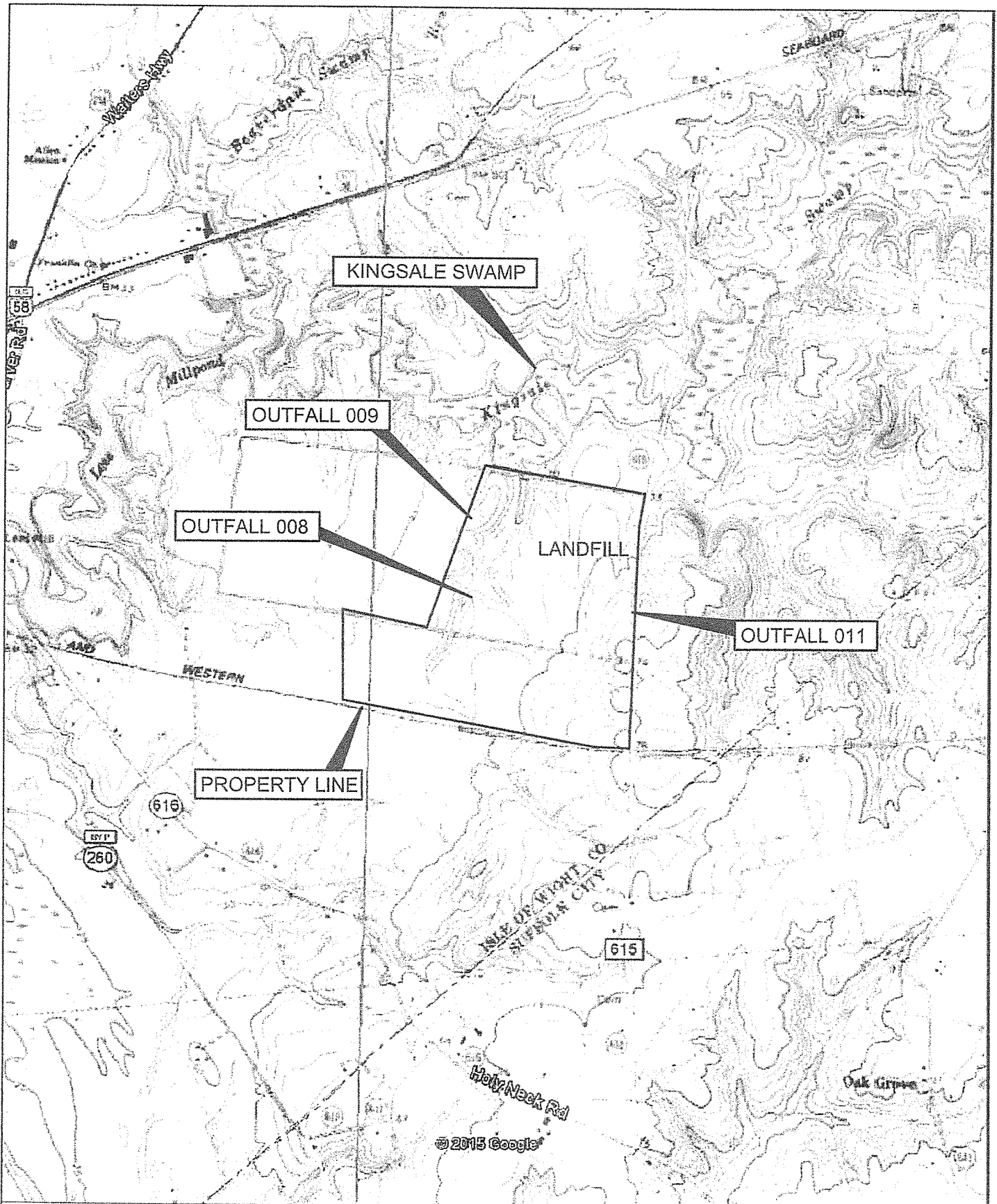


International Paper
NPDES Form 1, Section XI
Map D - Effluent Pond



GRAPHIC SCALE (IN MILES)





AECOM

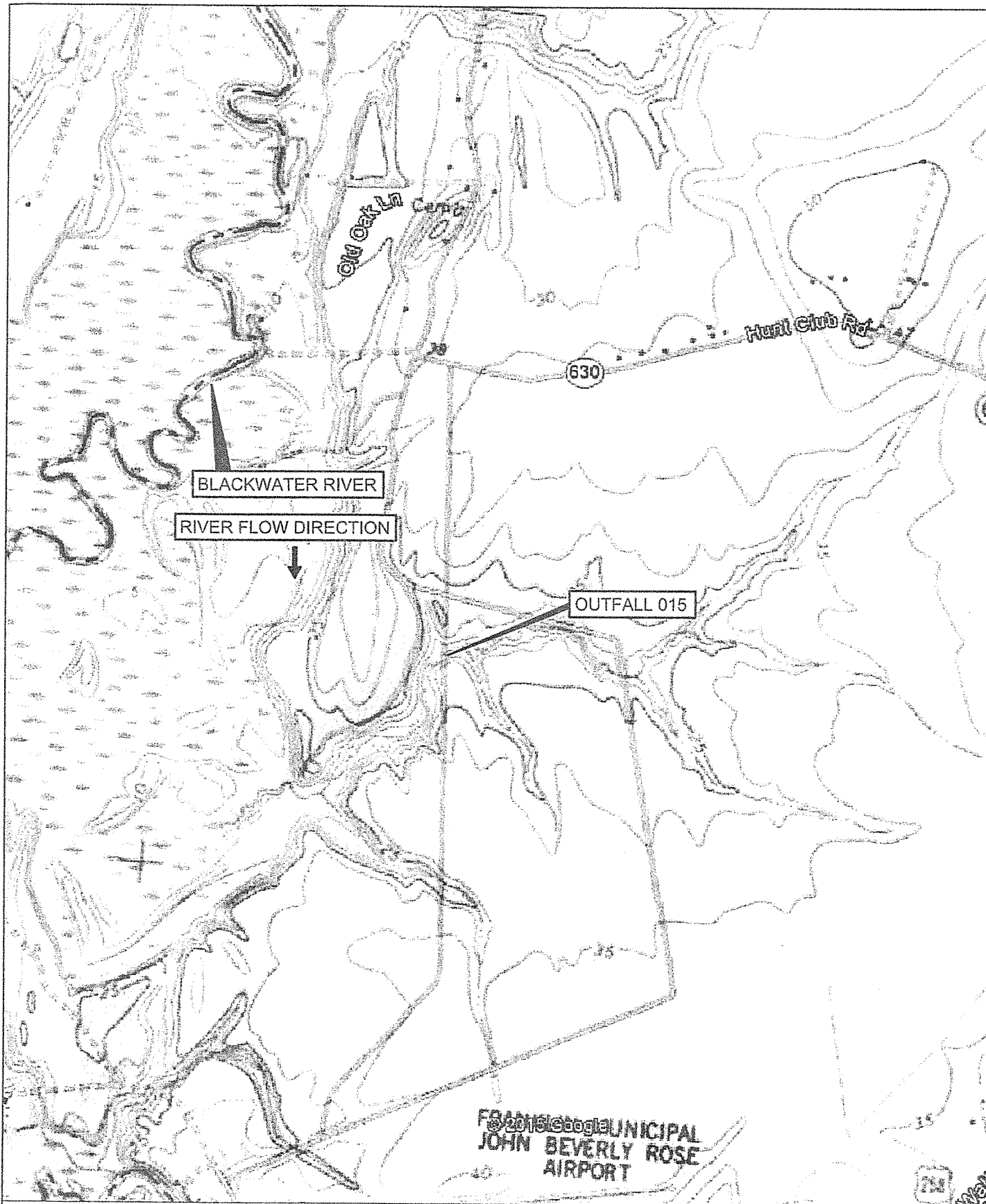
International Paper
NPDES Form 1, Section XI
Map C - Landfill



0 0.125 0.25 0.5

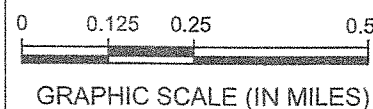


GRAPHIC SCALE (IN MILES)



AECOM

International Paper
NPDES Form 1, Section XI
Map B2 - North Well Field

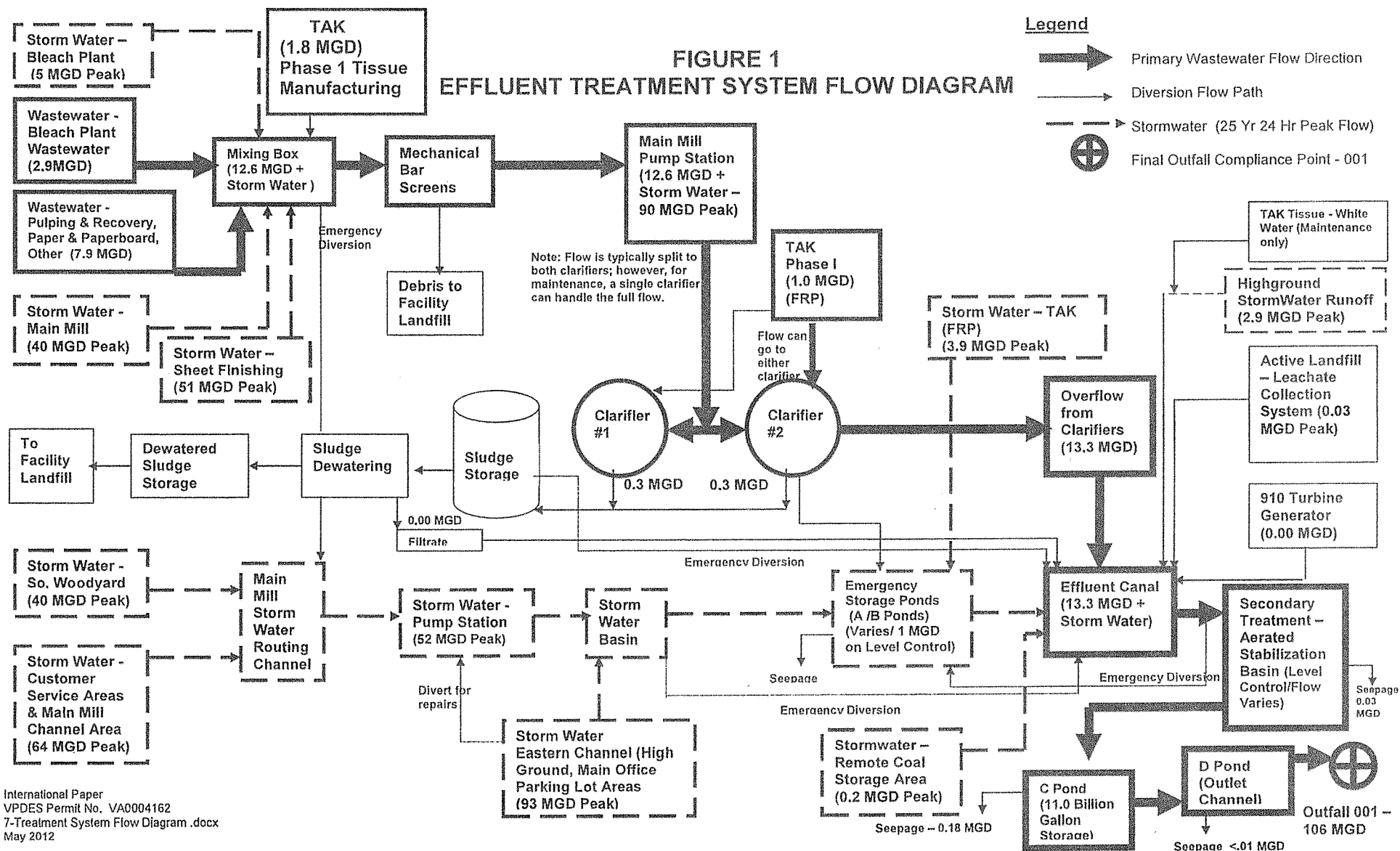


<u>Outfall</u>	<u>Latitude</u>			<u>Longitude</u>			<u>Receiving Water</u>
002	36	40'	45"	76	55'	00"	Blackwater River
006	36	40'	15"	76	54'	45"	Washole Creek
007	36	40'	15"	76	54'	45"	Washole Creek
008	36	40'	15"	76	52'	30"	Kingsale Swamp
009	36	40'	15"	76	52'	30"	Kingsale Swamp
011	36	41'	00"	76	51'	45"	Kingsale Swamp
012	36	40'	45"	76	54'	15"	Washole Creek
013	36	40'	45"	76	54'	30"	Washole Creek
014	36	40'	30"	76	54'	00"	Washole Creek

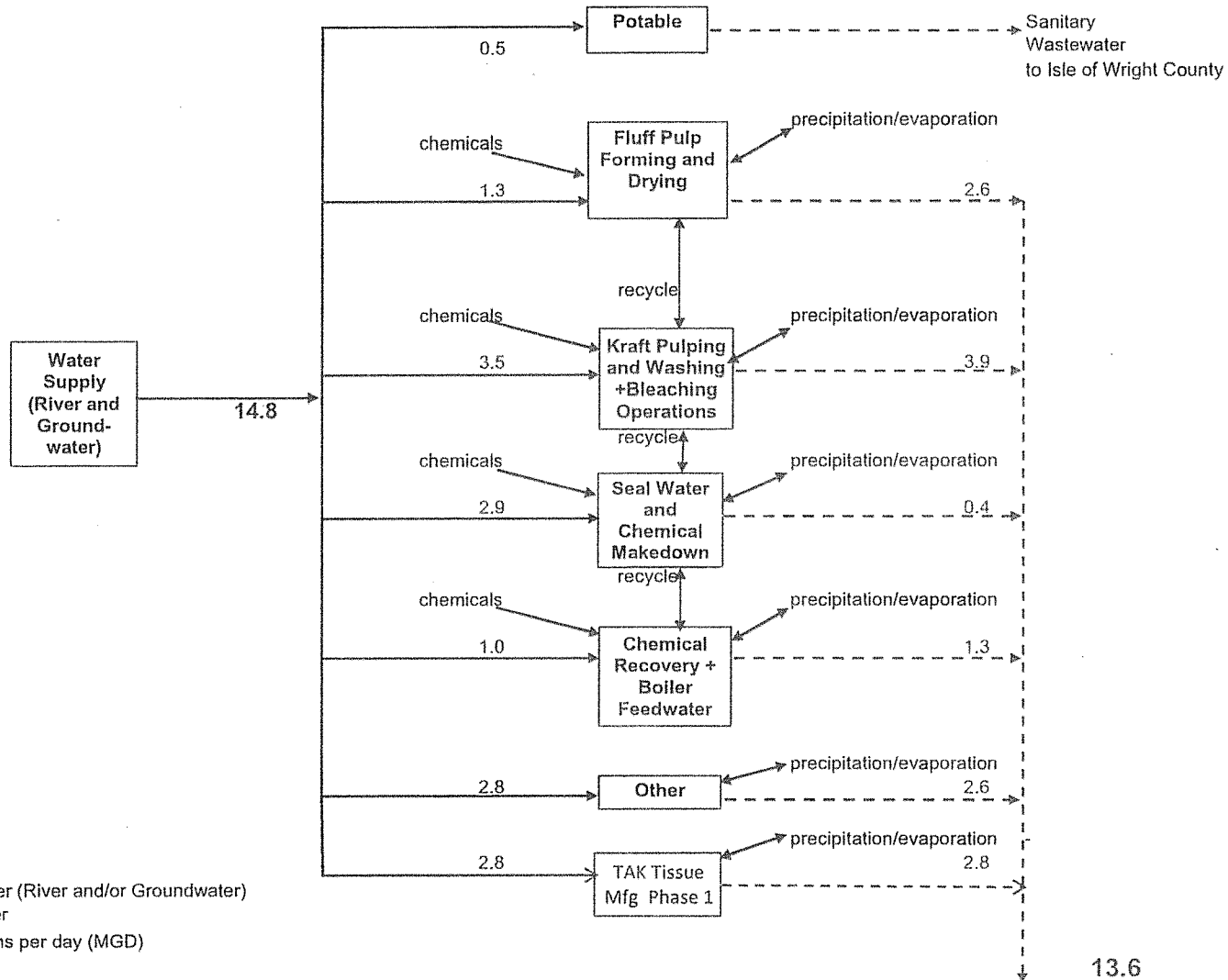
ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/
WATER BALANCE

**FIGURE 1
EFFLUENT TREATMENT SYSTEM FLOW DIAGRAM**



Water Flow Line Drawing Form 2C Section II.A



Legend

—————> Fresh Water (River and/or Groundwater)
 - - - - -> Wastewater

Flows are in million gallons per day (MGD)

Each additional Phase of TAK adds additional flow to treatment system (4 total Phases)

*Phase II adds 2.11 MGD to treatment system

*Phase III adds 2.63 MGD to treatment system (and water usage is 2.11+0.52 to FRP= 2.63 MGD)

*Phase IV adds 2.11 MGD to treatment system

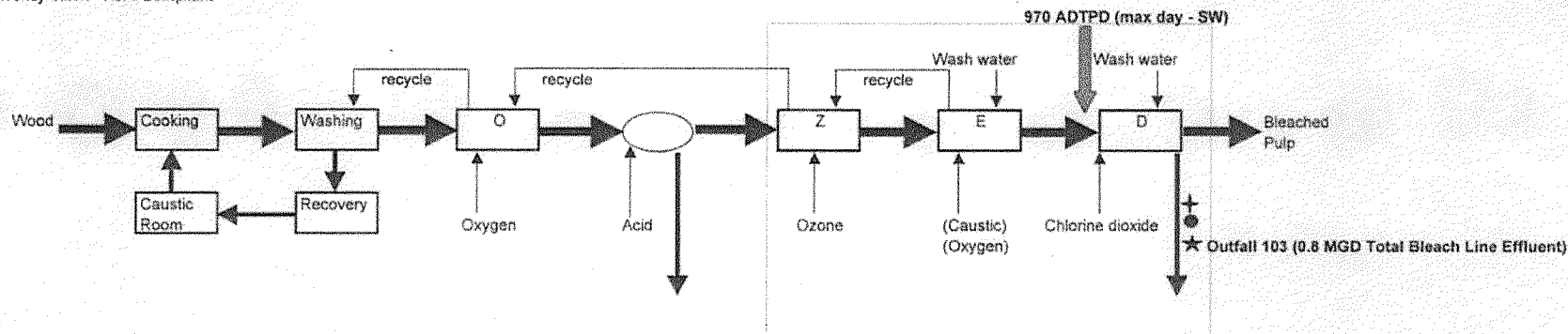
To the Effluent
Treatment System

Form 2C Section II.B

F Bleach Line

Current Configuration Softwood Furnish

Enrolled in Cluster Rule Voluntary Advanced Technology Incentives Program (VATIP)
Currently VATIP Tier I Compliant



Legend


- O Oxygen Stage
- Z Ozone Stage
- E Caustic Extraction Stage
- D Chlorine Dioxide Stage
- Bleach Plant as defined at 40 CFR Part 430.01c
- Reference Point for Production Defined at 40 CFR 430.01 n
- ★ Compliance Point for the Bleach Line Outfall
- ◆ Monitoring Location for 2,3,7,8-TCDD, 2,3,7,8-TCDF and 12 chlorophenolics
- ⊕ Monitoring Location for Chloroform
- ADTPD Air Dried tons Per Day
- MGD Million Gallons per Day
- HW Hardwood Furnish
- SW Softwood furnish

3-4

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

Please print or type in the unshaded areas only.

[illegible]

FORM 2F NPDES  U.S. Environmental Protection Agency
 Washington, DC 20460
Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (list)	B. Latitude			C. Longitude			D. Receiving Water (name)
002	36.00	40.00	47.00	76.00	54.00	59.50	Blackwater River
006, 010	36.00	40.00	14.70	76.00	54.00	39.80	Washole Creek
007	36.00	40.00	14.10	76.00	54.00	38.50	Washole Creek
008	36.00	40.00	53.00	76.00	52.00	8.80	Kingsale Swamp
009	36.00	41.00	4.30	76.00	52.00	1.00	Kingsale Swamp
011	36.00	41.00	0.70	76.00	51.00	41.20	Kingsale Swamp
012	36.00	40.00	40.50	76.00	54.00	22.10	Washole Creek
013	36.00	40.00	47.20	76.00	54.00	20.10	Washole Creek
014	36.00	40.00	29.90	76.00	54.00	0.80	Washole Creek
015	36.00	42.00	51.70	76.00	54.00	26.10	Blackwater River

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

[illegible]

B: You may attach additional sheets describing any additional water pollution (or other environmental) projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

4-3
FORM 2 C - Section II.B INSERT

1. Outfall		2. Operations Contributing Flow		3. Treatment	
No.		a. Operation (list)	b. Average Flow (mgd)	a. Description	b. List Codes from Table 2C
				PRIMARY TREATMENT	
001		Kraft Pulping & Recovery (SIC 2611) (Includes woodyard, batch and continuous digesters; chemical and heat recovery operations; turpentine processing; power and steam generation, pulp bleaching, fluff pulp forming and tissue manufacturing	10.8 (1)	Mechanical Bar Screens	1-T
103		Bleaching Operations F Bleach Line (Internal outfall) The F bleach line employs Advanced ECF bleaching technology to achieve Tier I VATIP (Voluntary Advanced Technology Incentives Program)	2.7 (1)	Screened Material to Landfill	5-Q
001		Tissue Manufacturing and Converting SIC 2621,2679 (Includes deinking, tissue manufacturing and converting by ST Tissue mfg, Phase 1)	2.8 (1)	Clarification Clarifier #1 - 230 ft diameter 2 - 800 gpm sludge pumps Clarifier #2 - 205 ft diameter 2 - 800 gpm sludge pumps	1-U
001		Other Sawmill Activities (SIC 2421) (4) (kiln blowdown and stormwater from around a repair shop that has been pretreated through an oil water separator from Franklin Lumber Co.)	0.001	Sludge Dewatering 2 - 2.0 Meter Belt Filter Presses w/ gravity thickeners 90 tons/day capacity each Sludge Feed Tank (62,000 gals) 3 Centrifugal Sludge Feed Pumps Solids to Landfill	5-C & 5-L
001		Stormwater Runoff (25 yr/24Hr Peak) (2) (3) Bleach Plant Main Mill Cust. Svc. & Main Mill Channel Areas East Channel/High Gr/Main Off. Areas South Woodyard Sheet Finishing Highground Pond Fiber Recycling Plant Area Remote Coal Storage Pile	5.00 40.00 64.00 93.00 40.00 51.00 2.90 3.90 0.17	SECONDARY TREATMENT Overflow from the clarifiers, stormwater runoff & landfill leachate, receive secondary treatment as follows: Aerated Stabilization Basin HRT = 7 days Total Aeration HP = 1650 Two Baffle Curtains	3 - B
001		Misc 910 Turbine Generator (5) Active Landfill - Leachate (5)	0.01 0.03	Holding Pond (C Pond) 11 Billion Gallon Class II Dam for effluent storage from April - Oct	3-G
Notes: (1) Flows measured from 2/2013 - 2/2015 (2) Stormwater flows are peak values based on a report from Davis and Floyd, March 1997 and are based on a 25 Yr/24 hr rainfall event. (3) Stormwater flows are accounted for in the average flows to the Effluent Treatment System; the peak number indicated is estimated and is not included in this average number. (4) The sawmill is not part of the facility proper. (5) Flow provided is an estimated nominal flow				Discharge Channel (D Pond) Conveyance channel for effluent releases (Nov - Mar)	None
				Outfall 001	4-A

FORM 2 C - Section III.C INSERT
Internal Outfall Information

" F " Bleach Line

Outfall Number	Bleach Line	Bleaching Sequence	Fiber Furnish	Unfinished Pulp Entering Bleach Plant		
				Maximum Daily Production (ADTPD)	Long-Term Avg Production (ADTPD)	Long-Term Avg Flow (MGD)
103	F	OED	SW	1,320	920	2.73
103	F	OED (w/semi)	SW	TBD	TBD	

ADTPD Air Dried Tons per Day

SW Softwood furnish

Semi Semi-bleached pulp comes off the O2 stage without entering the bleach plant

TBD Future fluff pulp product to be determined at a later date

Flows are projected estimates.

Production rate as defined at 40 CFR 430.01n

International Paper - Franklin Mill
 VPDES Permit No VA0004162

ATTACHMENT 5

TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001Outfall Description: Process wastewater , Phase ISIC CODE: 2611

(X) Final Limits Effective Dates - From: Effective To: The first full discharge season after TAK Investments, Inc. Phase II begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		292	NA	584	1/W	GRAB
TSS (lb/sea x 10 ⁶)	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		143	NA	286	1/W	GRAB
BOD5 (lb/sea x 10 ⁶)	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 ⁶)	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 ⁶) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 ⁻⁵) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 ⁻⁵) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater, Phase II

SIC CODE: 2611

(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase II begins To: The first full discharge season after TAK Investments, Inc. Phase III begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		307	NA	614	1/W	GRAB
TSS (lb/sea x 10 ⁶)	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		155	NA	310	1/W	GRAB
BOD5 (lb/sea x 10 ⁶)	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 ⁶)	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 ⁶) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 ⁻⁵) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 ⁻⁵) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater, Phase III

SIC CODE: 2611

(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase III begins To: The first full discharge season after TAK Investments, Inc. Phase IV begins

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		305	NA	610	1/W	GRAB
TSS (lb/sea x 10 ⁶)	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		149	NA	298	1/W	GRAB
BOD5 (lb/sea x 10 ⁶)	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 ⁶)	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 ⁶) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 ⁻⁵) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 ⁻⁵) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

5-4

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 001

Outfall Description: Process wastewater , Phase IV

SIC CODE: 2611

(X) Final Limits Effective Dates - From: The beginning of the first full discharge season after TAK Investments, Inc. Phase IV begins To: expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/D	MEAS
Flow, Seasonal (MG)[b]	2		NA	NA	14000	1/M	MEAS
pH (S.U.)[d]	2		NA	6.0	9.0	1/W	GRAB
TSS (mg/l)[c][d]	3		310	NA	620	1/W	GRAB
TSS (lb/sea x 10 ⁶)	2		NA	NA	2.88	1/M	GRAB
BOD5 (mg/l)[c][d]	3		152	NA	304	1/W	GRAB
BOD5 (lb/sea x 10 ⁶)	2		NA	NA	4.4	1/M	GRAB
COD (mg/l)[c]	3		NL	NA	NL	1/M	GRAB
Color, PCU	3		NL	NA	NL	1/W	GRAB
Nitrogen, Total as N (mg/l)	3		NL	NA	NL	1/M	GRAB
Phosphorus, Total as P (mg/l)	2		2	NA	NL	1/W	GRAB
Phosphorus, Total (lb/sea x 10 ⁶)	3		NA	NA	0.2	1/M	GRAB
Ammonia, as N (mg/l)[c]	2		2.15	NA	3.19	1/M	GRAB
Ammonia, as N (lb/sea x 10 ⁶) [c]	2		0.22	NA	0.32	1/M	GRAB
2,3,7,8-TCDD (pg/l)[a][c]	4		0.02	NA	0.02	1/SEA	GRAB
2,3,7,8-TCDD (lb/sea x 10 ⁻⁵) [a][c]	4		NA	NA	0.19	1/SEA	GRAB
2,3,7,8-TCDF (pg/l)[a][c]	3		NA	NA	NL	1/SEA	GRAB
2,3,7,8-TCDF (lb/sea x 10 ⁻⁵) [a][c]	3		NA	NA	NL	1/SEA	GRAB
AOX (mg/l)[c][d]	1		21	NA	47	1/M	GRAB
AOX (lb/season)[c]	1		NL	NA	175,000	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY;

1/Season = November 1 – March 31.

[a] See Special Condition I.B.11 for additional information concerning sampling methodology.

[b] Flow rate shall be measured by daily recording of the settings on properly calibrated discharge gates.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.9 for effluent monitoring frequency requirements

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment
4. North Carolina Water Quality Standards (NCAC, Ch.2, Subch. 2B, §.0208)

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 103Outfall Description: F Bleach Plant effluentSIC CODE: 2611

(X) Final Limits Effective Dates - Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS[a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)[b]	3		NL	NA	NL	1/M	MEAS
2,3,7,8-TCDD (pg/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,3,7,8-TCDF (pg/l)[c]	1		NA	NA	31.9	1/Year	GRAB
Chloroform (ug/l)[c]	3		NL	NA	NL	1/Year	GRAB
Chloroform (g/day)[c]	1		3463	NA	5788	1/Year	GRAB
Trichlorosyringol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,5-Trichlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,6-Trichlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,5-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
3,4,6-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
4,5,6-Trichloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,4,5-Trichlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,4,6-Trichlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Tetrachlorocatechol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Tetrachloroguaiacol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
2,3,4,6-Tetrachlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Pentachlorophenol (ug/l)[c]	1		NA	NA	ND	1/Year	GRAB
Kappa Annual Average-Softwood [d]	1		20	NA	NA	1/M	GRAB
Kappa Monthly Average[d]	3		NL	NA	NA	1/M	GRAB

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/Year = January 1 – December 31.

[a] See Special Condition I.B.15 for additional information concerning sampling methodology.

[b] Flow rate shall be determined by measurement devices when available, and in the absence of such devices, by flow balances around and within the bleach plant sewer. All information used to determine flow rates shall be retained in accordance with Part II.B.

[c] See Special Conditions I.B.6 and I.B.7 for additional information concerning Quantification Levels (QLs) and compliance reporting.

[d] See Special Condition I.B.16 for additional information concerning Kappa Number measurement and reporting.

The bases for the limitations codes are:

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL MAJOR EFFLUENT LIMITATIONS

OUTFALL # 010 and 015

Outfall Description: untreated fresh groundwater resulting from periodic flushing of the water supply line

SIC CODE: 2611

(X) Final Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
NO MONITORING REQUIRED	3						

THESE OUTFALLS SHALL CONTAIN UNTREATED FRESH GROUNDWATER WHERE NO MONITORING IS REQUIRED.
THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER OR STORMWATER FROM THESE OUTFALLS.

1. Federal Effluent Guidelines
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - STORMWATER EFFLUENT LIMITATIONS

OUTFALL # 002, 006, 007, 008, 009, 011, 012, 013, 014

Outfall Description: 002 - storm water only from North rail yard area to Blackwater River; 006, 007 - storm water only from south end of facility to Washole Creek; 008, 009, 011 - storm water only from natural areas outside of landfill dike to Kingsale Swamp; 012, 013, 014 - storm water only from trailer parking area(s) (012 and 013) and from gravel lots for construction material and trailer storage (014) to Washole Creek

SIC CODE: 2611

THESE OUTFALLS SHALL CONTAIN STORMWATER RUNOFF ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO BIOLOGICAL MONITORING IS REQUIRED. THERE SHALL BE NO DISCHARGE OF PROCESS WASTEWATER FROM THESE OUTFALLS. THE PERMITTEE SHALL IMPLEMENT PROPER STRUCTURAL AND/OR NON-STRUCTURAL BMP's TO CONTROL POLLUTANTS FROM THESE OUTFALLS. SEE PART I.E.

- | | | |
|---|---|--|
| (1) Timber Products | (12) Automobile Salvage Yards | (20) Food & Kindred Products |
| (2) Paper & Allied Products | (13) Scrap/Waste Recycling | (21) Textile Mills, Apparel & Other Fabric Products Mfg. |
| (3) Chemical & Allied Products | (14) Steam Electric Power Generating, Inc. Coal Handling Areas | (22) Wood & Metal Furniture and Fixture Mfg. |
| (4) Asphalt Paving/Roofing Matls. & Lubricant | (15) Motor Freight, Passenger, Rail, U.S. Postal Transportation & Petroleum Bulk Oil Stations and Terminals | (23) Printing & Publishing |
| (5) Glass, Clay, Cement, Concrete & Gypsum Products | (16) Water Transportation With Maintenance and/or Equipment Cleaning | (24) Rubber, Miscellaneous Plastic Products & Miscellaneous Mfg. |
| (6) Primary Metals | (17) Ship/Boat Building or Repairing | (25) Leather Tanning & Finishing |
| (7) Metal Mining (Ore Mining & Dressing | (18) Vehicle Maintenance, Equipment Cleaning or Deicing Areas At Air Transportation Facilities | (26) Fabricated Metal Products |
| (8) Coal Mines & Coal Mining Related | (19) Treatment Works | (27) Transportation Equipment, Industrial or Commercial Machinery Mfg. |
| (9) Oil & Gas Extraction & Petroleum Refineries | | (28) Electronic & Electrical Equipment and Components, Photographic & Optical Goods Mfg. |
| (10) Hazardous Waste Treatment, Storage, Disposal | | (29) Nonclassified Facilities |
| (11) Landfills, Land Application Sites & Open Dumps | | |

ATTACHMENT 6

EFFLUENT LIMITATIONS/MONITORING
RATIONALE/SUITABLE DATA/
ANTIDEGRADATION/ANTIBACKSLIDING

6-1

VPDES PERMIT PROGRAM
EFFLUENT LIMITATIONS AND MONITORING RATIONALE
for
International Paper-Franklin Mill

International Paper (IP) owns and operates the manufacturing at this facility; administrative offices, production facilities and warehousing operations are located on the mill site. IP operates one machine which produces fluff pulp. A tenant company, TAK Investments, Inc. also operates at the mill site and manufactures tissue. TAK Investments, Inc. operations include one paper machine, the fiber recycling plant, administrative offices and warehousing operations. The facility is subject to the federal Pulp, Paper and Paperboard Point Source Category effluent limitations guidelines (ELG) regulations at 40 CFR Part \$430, General Provisions, and 40 CFR \$430 Subpart B, Bleached Papergrade Kraft and Soda Subcategory, in addition to applicable Virginia water laws and regulations. The federal regulations affect outfall 001 and one internal outfall, 103. A copy of these applicable federal regulations is provided in this Attachment.

In addition to effluent monitoring for surface water discharge, the company has performed groundwater monitoring in accordance with an approved plan submitted in 2002/2003. Semi-annual monitoring and annual reporting requirements have continued as a part of the permit through each reissuance and modification since the groundwater plan was approved in 2003. The purpose of the plan is to evaluate the effects of the effluent seepage from the Aerated Stabilization Basin (ASB) to surrounding sensitive receptors. The groundwater wells are situated as receptors if the ASB ponds were to leak and naturally flow toward the Blackwater River. To date the groundwater data confirms and the reports conclude, that no significant changes have occurred in the water quality downgradient of the ASB and no exceedances of the comparison values for tested analytes have occurred. This report is submitted no later than March 31st each year in conjunction with the annual discharge season (November-March).

Out-Of-Season discharge special condition is continued in this reissuance. During the year, all process water is stored in the C pond until the discharge season begins November 1st and continues through March 31st at which time effluent is conveyed to D pond and discharged to state waters from that storage pond. An out-of-season discharge (September/October) is considered on a case-by-case basis from D pond ONLY. The monitoring requirements for this case-by-case discharge have been determined based on the fact that D pond is drained to the lowest point possible during the discharge season. After the discharge season, beginning April 1st each year, stormwater and ground water are the only sources entering D pond until the next discharge season begins November 1st. Therefore the presence of dioxin and furans in the effluent during out-of-season discharge is not a concern; thus the monitoring exclusion in the special condition for these two pollutants.

Outfall 103 (F Bleach Line) (D and E Bleach Lines are currently "inactive")

The applicant has enrolled its F bleach line in the VATIP at the Tier I level and has qualified as Advanced ECF (Elemental Chlorine-Free). Bleach plant effluent from the F Bleach Line is regulated under 40 CFR §430 and must meet Best Available Technology (BAT) effluent limitations imposed by 40 CFR §430, particularly §430.24(b) (VATIP) and §430.02 (monitoring requirements), at the point where the wastewater leaves the bleach plant. The plant has achieved compliance with the requirements, and the limits were initially placed in the permit effective January 19, 2000. The federal BAT minimum monitoring frequency requirements under 40 CFR §430 are no longer applicable, as 40 CFR §430.02(c) for plants enrolled in the VATIP specifies that monitoring at the specified frequencies shall continue for a duration of five years from the date the permit first included applicable limitations from subpart B. The permittee had asked that monitoring for those parameters addressed by §430.02 be discontinued altogether; however, 40 CFR §122.44(i) requires at least annual monitoring to determine compliance with the Federal ELG's for those parameters addressed by the ELG which contain limitations. Therefore, monitoring cannot be discontinued altogether. Monitoring for the applicable parameters was reduced effective at the issuance of the permit, to the maximum extent allowable under §122.44(i). The sample type will be a grab sample. It is a staff BPJ decision that for facilities enrolled in the VATIP program that have demonstrated five years of compliance, a grab sample is sufficient to determine continued compliance with the ELG limits. Based on the list of parameters addressed in 40 CFR §430.02(c), Kappa number is not included in the list of parameters where monitoring is reduced after five years.

Rationale for Effluent Limitations

Flow: The monitoring frequency is once per month and the Daily Maximum and Monthly Average effluent limitations are NL, based on BPJ. Flow balances are routinely used at the bleach line to control the bleaching process and are considered to be sufficiently accurate for effluent monitoring purposes, if direct measurements are not available. Therefore, flow rate shall be determined by measurement devices when available, and in the absence of such devices, by flow balances around and within the bleach plant sewer. All information used to determine flow rates shall be retained in accordance with Part II.B to allow later on-site inspection of flow measurement records. The measurement of flow is necessary to evaluate the potential impact of the discharge on receiving waters, including but not limited to the calculation of pollutant mass from concentration data, as well as to verify that federal mass-based ELGs have been appropriately implemented through conversion to concentration-based effluent limitations for this source.

TCDD, TCDF, chloroform, and the 12 chlorinated phenolic pollutants:

Limitations are being established based on the federal ELGs, as follows. The applicant has enrolled its "F" bleach line in the VATIP at the Tier I Stage 2 level; the limitations are in effect. Therefore, Tier I Stage 2 limitations at 40 CFR §430.24(b)(4) apply on permit reissuance date. Because the F bleach line employs Advanced ECF bleaching technology to achieve Tier I limitations, federal regulations at 40 CFR §430.02(c), footnote (f) allow suspension of monitoring for these pollutants after one year of monitoring as an incentive for enrolling in the VATIP. However, based on the minimum monitoring required under 40 CFR §122.44(i)(2), monitoring for these pollutants will be continued at a once per year frequency. The Minimum Levels specified at 40 CFR §430.01(i) are being implemented as Quantification Levels (QLs), based on BPJ. "ND" shall mean non-detectable at the corresponding Quantification Level. A measured value equal to or greater than the QL shall be considered to exceed the

limitation. Effluent limitations (except for Chloroform) are being maintained at the same numerical values as for the prior monitoring period to ensure that the F bleach line continues to meet the baseline BAT level of performance, and are restated below:

Parameter	Daily Maximum	Monthly Average	Quantification Level (QL)
2,3,7,8-TCDD	ND*		10 pg/l**
2,3,7,8-TCDF	31.9 pg/l		10 pg/l
Trichlorosyringol	ND		2.5 ug/l
3,4,5-Trichlorocatechol	ND		5.0 ug/l
3,4,6-Trichlorocatechol	ND		5.0 ug/l
3,4,5-Trichloroguaiacol	ND		2.5 ug/l
3,4,6-Trichloroguaiacol	ND		2.5 ug/l
4,5,6-Trichloroguaiacol	ND		2.5 ug/l
2,4,5-Trichlorophenol	ND		2.5 ug/l
2,4,6-Trichlorophenol	ND		2.5 ug/l
Tetrachlorocatechol	ND		5.0 ug/l
Tetrachloroguaiacol	ND		5.0 ug/l
2,3,4,6-Tetrachlorophenol	ND		2.5 ug/l
Pentachlorophenol	ND		5.0 ug/l
Chloroform, g/d	3463	5788	
Chloroform, ug/l	NL	NL	

*ND = Non-detectable at the Quantification Level specified.

Detection at the Quantification Level shall constitute an exceedance of the effluent limitation.

**pg/l = picograms per liter

For chloroform, the federal baseline BAT ELG's at 40 CFR §430.24(a)(1) are stated as a mass basis per unit of production (grams of chloroform per 1000 kg of air dried (10% moisture) brownstock pulp entering the first stage of the bleach plant (40 CFR §430.01(n)(2)), as follows:

Parameter	Daily Maximum	Monthly Average
Chloroform	6.92 g/kg*	4.14 g/kg *grams per 1000kilograms

For purposes of enforceability, these production-based federal ELG's have been converted to mass-based effluent limitations. These limitations apply to the total "F" Bleach Line effluent. The monitoring frequency is monthly, as specified in 40 CFR §430.02(c), however those plants certifying Advanced ECF, monitoring may be suspended after one year of monitoring; due to EPA requirements stipulating minimum monitoring frequency of 1/year, monitoring for chloroform was set at 1/year in the previous reissuance; this reissuance will continue the 1/year monitoring frequency. For the "F" Bleach Line, the maximum daily production rate is 920 US Tons (application data).

The daily maximum effluent limitation is 5788 g/day,
The monthly average effluent limitation is 3463 g/day.
Conversion to g/day was calculated as follows:

Daily Maximum

$$\frac{6.92 \text{ g}}{\text{kg}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{920 \text{ Ton}}{\text{day}} = \frac{5787.6 \text{ g}}{\text{day}} \text{ (rounded to } \underline{5788 \text{ g/day}})$$

Monthly Average

$$\frac{4.14 \text{ g}}{\text{Kg}} \times \frac{\text{kg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{Ton}} \times \frac{920 \text{ Ton}}{\text{day}} = \frac{3462.5 \text{ g}}{\text{day}} \text{ (rounded to } \underline{3463 \text{ g/day}})$$

IN ADDITION, based on best professional judgment, a daily maximum and monthly average CONCENTRATION-BASED, monitoring only "NL" is being continued from the previous permit.

AOX: The federal ELG for AOX discharged from the F bleach line applies to the facility's combined final effluent at Outfall 001 and is based on the AOX ELGs for the F bleach line. See Outfall 001 below for determination of AOX effluent limitations. (Limitations are reduced based on the inactive status of D and E Bleach Lines)

Kappa Number: Limitations are established based on the federal ELGs, as follows. The Kappa Annual Average-Softwood limitation of 20 S.U. is continued based on the federal ELGs. The Kappa Annual Average-Hardwood was removed from the permit during the 2012 modification because the permittee has stated that they will not be doing hardwood at the repurposed mill, only softwood. Based on BPJ, the Kappa Annual Average effluent limitations are being expressed as a 12-month rolling average, and the monitoring frequency is monthly, to allow monthly tracking of the facility's annual average Kappa Number. Additionally, based on BPJ, the Kappa Monthly Average effluent limitation of NL is continued to allow tracking of the individual monthly Kappa Number values that comprise the 12-month rolling average.

Final Effluent OutfallOutfall 001

Process wastewater is stored in C pond and will be discharged via "D" pond during discharge seasons. Process wastewater will be generated from one internal bleach line (F Bleach Line) at the plant as part of the 2012 repurposing of the plant. Limits will be the similar to the previous permit, however revisions (to numeric limitations) will be made based on current processes and flows and current operations at the plant. Specific changes in internal processes and bleach-line specific production flows will be addressed at the internal outfall for the operational bleach line. (D and E Bleach lines are currently inactive).

The Blackwater River at the location of Outfall 001 is identified as a Tier 1 water and listed on the 303(d) listed streams. Because this permit limits routine seasonal discharges from outfall 001 to the months of November through March inclusive (see Special Condition I.B.13), all computations involving stream flow data will be limited to this discharge season.

The receiving stream flow statistics are as follows:

<u>Blackwater River</u>		
1Q10	0.22 mgd	(November-March)
7Q10	1.36 mgd	(November-March)
30Q5	29.3 mgd	(November-March)
30Q10	2 mgd	
Mean Annual		
Flow	702.2 mgd	(November-March at the VA-NC state line)

Flow: The measurement of flow is necessary to evaluate the potential impact of the discharge on receiving waters, including but not limited to the calculation of pollutant mass from concentration data, the consideration of mixing zone aspects and Instream Waste Concentration, evaluation of potential acute and chronic toxicity effects, and evaluation of wastewater handling and/or treatment system capacities. The effluent limitation for flow rate in MGD is established as NL Daily Minimum, NL Monthly Average and NL Daily Maximum, and the monitoring frequency is once per day, based on BPJ. The flow rate shall be accurately measured by daily recording of the settings on properly calibrated discharge gates and shall not be estimated. The effluent limitation for cumulative flow is established at 14 billion gallons (14,000 MG) per discharge season, based on the state Water Quality Management Plan, and the monitoring frequency is monthly, based on BPJ.

COD: The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of toxic substances or substances which may interfere with designated uses. EPA has indicated that it intends to promulgate COD limitations for 40 CFR §430 Subpart B mills (which would include this facility) in a later rulemaking. The 2012 edition of the 40 CFR has reserved the limits for COD at this time. COD is a broad measure of organic content, which includes toxic organic materials that are not readily biodegraded and, hence, are not generally measured by the BOD5 test. Therefore, the Daily Maximum and Monthly Average effluent limitations for COD are NL, and the monitoring frequency is once per month, based on BPJ.

BOD5: The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances which may interfere with designated uses. The federal ELGs at 40 CFR §430 Subpart B (Bleached Papergrade Kraft) establish mass-based best practicable control technology (BPT) limitations for BOD5 based on facility product types and quantities. For non-continuous dischargers, the ELGs are stated as an annual average mass-based limitation. The monitoring frequency is not specified. The applicable state Water Quality Management (WQM) Plan limits BOD5 to a maximum of 4.4 million pounds per year. Based on BPJ, the annual average BOD5 limitation is being expressed as a monthly average because the facility accumulates its daily discharge in a holding pond and does not discharge for an entire year. BOD Limitations have been calculated in four phases, corresponding to the four phases of production lines of the ST Tissue Manufacturing process. With the TAK Investments, Inc. manufacturing process, concentration limits for BOD will increase during the proposed four manufacturing phases. The new BOD concentration limits will be similar to the limitations at the mill prior to the mill shutdown in 2010. The Phase I Monthly Average BOD5 limitation is being set at 143 mg/l, based on the federal ELGs (see table below). The Daily Maximum BOD5 limitation is being set at 286 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase II Monthly Average BOD5 limitation is being set at 155 mg/l, based on the federal ELGs (see table below). The Daily Maximum BOD5 limitation is being set at 310 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase III Monthly Average BOD5 limitation is being set at 149 mg/l, based on the federal ELGs (see table below). The Daily Maximum BOD5 limitation is being set at 298 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase IV Monthly Average BOD5 limitation is being set at 152 mg/l, based on the federal ELGs (see table below). The Daily Maximum BOD5 limitation is being set at 304 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The monitoring frequency is once per week, based on BPJ, because the facility's 11-billion gallon storage pond (C Pond) significantly dampens potential daily effluent variability. Additionally the Discharge Season Cumulative Maximum BOD5 limitation is being set at 4.4 million pounds, based on the Virginia WQM Plan, with a monitoring frequency of once per month.

6-7

Monthly Average BOD5 - Phase I of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	208	1,285.44	2.8	55.00
Total BPT Limit - Phase I					142.96

Monthly Average BOD5 = 143 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

7928.08 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$208(2000) = 416000/1000 = 416(3.09) = 1285.44 \text{ \#/d annual average}$

1285.44 \#/d

$8.345 \text{ \#/gal (2.8mgd)} = 55.00 \text{ mg/l}$

Monthly Maximum BOD5 = 286 mg/l (2 x's the average)

6-8

Monthly Average BOD5 - Phase II of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	416	2,570.88	4.91	67.14
Total BPT Limit - Phase II					155.10

Monthly Average BOD5 = 155 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

7928.08 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$416(2000) = 832000/1000 = 832(3.09) = 2570.88 \text{ \#/d annual average}$

2750.88 \#/d

$8.345 \text{ \#/gal (4.91mgd)} = 67.14 \text{ mg/l}$

Monthly Maximum BOD5 = 310 mg/l (2 x's the average)

6-9

Monthly Average BOD5 - Phase III of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	624	3,856.32	7.54	61.29
Total BPT Limit - Phase III					149.25

Monthly Average BOD5 = 149 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

7928.08 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$624(2000) = 1248000/1000 = 1248(3.09) = 3856.32 \text{ \#/d annual average}$

3856.32 \#/d

$8.345 \text{ \#/gal (7.54mgd)} = 61.29 \text{ mg/l}$

Monthly Maximum BOD5 = 298 mg/l (2 x's the average)

Monthly Average BOD5 - Phase IV of TAK Investments, Inc. process operation

BOD5 Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average BOD5 Limitation (lb/d)	Production Line Effluent Volume (mgd)	BOD5 Limitation (mg/l)
Market Pulp	4.52	877	7,928.08	10.8	87.96
Paperboard	3.99 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	3.09 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	832	5,141.76	9.65	63.85
Total BPT Limit - Phase IV					151.81

Monthly Average BOD5 = 152 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(4.52) = 7928.08 \text{ \#/d annual average}$

7928.08 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 87.96 \text{ mg/l}$

Fine Tissue

$832(2000) = 1664000/1000 = 1664(3.09) = 5141.76 \text{ \#/d annual average}$

5141.76 \#/d

$8.345 \text{ \#/gal (9.65mgd)} = 63.85 \text{ mg/l}$

Monthly Maximum BOD5 = 304 mg/l (2 x's the average)

TSS: The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances which may interfere with designated uses. The federal ELGs at 40 CFR §430 Subpart B (Bleached Papergrade Kraft) establish mass-based best practicable control technology (BPT) limitations for TSS based on facility product types and quantities. For non-continuous dischargers, the ELGs are stated as an annual average mass-based limitation. The monitoring frequency is not specified. The applicable state Water Quality Management (WQM) Plan limits TSS to a maximum of 2.88 million pounds per year. Based on BPJ, the annual average TSS limitation is being expressed as a monthly average because the facility accumulates its daily discharge in a holding pond and does not discharge for an entire year. TSS Limitations have been calculated in four phases, corresponding to the four phases of production lines of the ST Tissue manufacturing process. With the TAK Investments, Inc. manufacturing process, concentration limits for TSS will increase during the proposed four manufacturing phases. The new TSS concentration limits will be similar to the limitations at the mill prior to the mill shutdown in 2010. The Phase I Monthly Average TSS limitation is being set at 292 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 584 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase II Monthly Average TSS limitation is being set at 307 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 614 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase III Monthly Average TSS limitation is being set at 305 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 610 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The Phase IV Monthly Average TSS limitation is being set at 310 mg/l, based on the federal ELGs (see table below). The Daily Maximum TSS limitation is being set at 620 mg/l, which is equal to twice the monthly average, based on BPJ, taking into account typical variability experienced by industrial wastewater treatment systems. The monitoring frequency is once per week, based on BPJ, because the facility's 11-billion gallon storage pond (C Pond) significantly dampens potential daily effluent variability. Additionally the discharge season cumulative maximum TSS limitation is being set at 2.88 million pounds, based on the Virginia WQM Plan, with a monitoring frequency of once per month.

6-12

Monthly Average TSS - Phase I of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	208	2,720.64	2.8	116.42
Total BPT Limit - Phase I					291.76

Monthly Average TSS = 292 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

15803.54 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$208(2000) = 416000/1000 = 416(6.54) = 2720.64 \text{ \#/d annual average}$

2720.64 \#/d

$8.345 \text{ \#/gal (2.8mgd)} = 116.42 \text{ mg/l}$

Monthly Maximum BOD5 = 584 mg/l (2 x's the average)

6-13

Monthly Average TSS - Phase II of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	416	5,441.28	4.91	132.81
Total BPT Limit - Phase II					307.15

Monthly Average TSS = 307 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

15803.54 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$416(2000) = 832000/1000 = 832(6.54) = 5441.28 \text{ \#/d annual average}$

5441.28 \#/d

$8.345 \text{ \#/gal (4.91mgd)} = 132.81 \text{ mg/l}$

Monthly Maximum BOD5 = 614 mg/l (2 x's the average)

6-14

Monthly Average TSS - Phase III of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	624	8,161.92	7.54	129.72
Total BPT Limit - Phase III					305.06

Monthly Average TSS = 305 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754 (9.01) = 15803.54 \text{ \#/d annual average}$

15803.54 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$624(2000) = 1248000/1000 = 1248 (6.54) = 8161.92 \text{ \#/d annual average}$

8161.92 \#/d

$8.345 \text{ \#/gal (7.54mgd)} = 129.72 \text{ mg/l}$

Monthly Maximum BOD5 = 610 mg/l (2 x's the average)

Monthly Average TSS - Phase IV of TAK Investments, Inc. process operation

TSS Limitation based on BPT ELGs at 40 CFR §430					
Product Type	ELG (lb/1000 lb)	Production Rate (Tons/day)	Annual Average TSS Limitation (lb/d)	Production Line Effluent Volume (mgd)	TSS Limitation (mg/l)
Market Pulp	9.01	877	15,038.54	10.8	175.34
Paperboard	7.09 (\$430.22)	0	NA	NA	0
Pulp & Fine Papers (Deinking included in this process)	6.54 (\$430.22) Note - 100% of the deinking process under \$430.92 is included in the pulp and fine paper production	832	10,882.56	9.65	135.14
Total BPT Limit - Phase IV					310.48

Monthly Average TSS = 310 mg/l (market pulp + fine tissue)

Market Pulp

$877(2000) = 1754000/1000 = 1754(9.01) = 15803.54 \text{ \#/d annual average}$

15803.54 \#/d

$8.345 \text{ \#/gal (10.8mgd)} = 175.34 \text{ mg/l}$

Fine Tissue

$832(2000) = 1664000/1000 = 1664(6.54) = 10882.56 \text{ \#/d annual average}$

10882.56 \#/d

$8.345 \text{ \#/gal (9.65mgd)} = 135.14 \text{ mg/l}$

Monthly Maximum BOD5 = 620 mg/l (2 x's the average)

Color: The Water Quality Standards at 9 VAC 25-260-20 prohibit the presence of substances in amounts which interfere with designated uses and authorize the control of substances that produce color. Neither the Virginia Water Quality Standards nor the applicable federal ELGs at 40 CFR §430 contain numerical limitations or monitoring frequencies for color. Therefore, based on BPJ, the Monthly Average and Daily Maximum limitations for color are established as NL, and the monitoring frequency is weekly.

pH: The effluent pH is limited to 6.0-9.0, based on applicable Water Quality Standards. The monitoring frequency is weekly, based on BPJ. Measurement of effluent pH is necessary to confirm proper treatment, characterize the discharge and adequately evaluate its potential impact on receiving waters. The Water Quality Standards at 9 VAC 25-260-50 limit pH in surface waters to the range of 6.0-9.0. The federal ELGs at 40 CFR §430 limit pH to the range 5.0-9.0 at all times, and the monitoring frequency is not specified.

Total Nitrogen: The Daily Maximum and Monthly Average NL monitoring requirements for Total Nitrogen in the previous permit are being continued, the monitoring frequency is being retained at monthly, based on BPJ, for the following reasons: (1) there is no water quality criterion for total nitrogen in waters other than Chesapeake Bay tributaries; (2) monitoring results during the previous permit term indicate only low levels of total nitrogen; and (3) the permit will continue to limit ammonia-nitrogen, for which a water quality criterion does exist.

Total Phosphorus: The Blackwater River is identified at 9 VAC 25-260-470 as a Nutrient Enriched Water. There is no freshwater water quality criterion for phosphorus. The Policy for Nutrient Enriched Waters at 9 VAC 25-40-30(A) requires a monthly average total phosphorus effluent limitation of 2 mg/l. Based on BPJ, the Daily Maximum limitation is NL to allow monitoring of peak measured values. The weekly monitoring frequency in the previous permit is being retained, based on BPJ. Additionally, based on BPJ, a seasonal maximum limitation of 200,000 pounds* is based on

$$(2 \frac{mg}{l})(11,286)(8.34) = 188,250lbs$$

**(and - rounded = 200,000lbs)*

previous flows and calculated based on a seasonal discharge flow of 11,286 million gallons during the previous permit term (Actual calculated value of 188,300 lbs rounded to 200,000 lbs in previous permit). In order to maintain nutrient loadings to nutrient enriched receiving streams, the limit will not be recalculated based on recent flows.

Ammonia-Nitrogen: All references to ammonia in this section refer to ammonia as N. The Blackwater River at Outfall 001 is identified as a Nutrient Enriched Water. The relevant receiving stream water quality statistics are as follows:

Hardness	48.1 mg/l	(90th %ile)
pH	7.00 SU	(90th %ile)
Temp	25.13 °C	(90th %ile)

The need to change the ammonia limit was re-evaluated; see the attached stats.exe using revised WLA and data. The previous limits are being retained, as follows: Monthly Average 2.15 mg/l and Daily Maximum 3.19 mg/l, with the monitoring frequency re-established to once per month; and Seasonal Monthly

Average 220,000 pounds and Seasonal Maximum 320,000 pounds, with a monitoring frequency of once per month, based on BPJ.

Dioxin (2,3,7,8-TCDD): The Virginia water quality standard for dioxin is 5.1 (10⁻⁸) ug/l (micrograms per liter for the protection of human health, which equals 0.051 pg/l (picogram per liter) (see 9 VAC 25-260-150). The North Carolina human health standard is 0.000005 nanograms per liter, or stated for comparison purposes, 0.005 pg/l. Thus, the North Carolina standard is more restrictive. Because Outfall 001 discharges within one stream mile of the Virginia-North Carolina state line, the North Carolina standard and stream flow value will be used to derive the permit limitations.

Determination of Human Health WLA (WLAh)

WLAh is calculated by the steady state complete mix method using the North Carolina dioxin standard of 0.005 pg/l and the mean annual Chowan River flow of Qs (=1537 mgd) when evaluating carcinogenic materials. The Chowan data is used as this is where the effluent stream enters into NC, it protects NC standard and was agreed upon in the 1994 permit negotiations. Because the North Carolina standard is a "never-to-be-exceeded" standard, the maximum effluent flow rate of 500 mgd indicated by the applicant will be used for Qe. No allowance for any

$$WLAh(pg/l) = \frac{0.005(500+1537)}{500} = \underline{0.020 \text{ pg/l}}$$

To ensure that a WLAh of 0.020 pg/l is protective of the Virginia Standard. WLAh is calculated using the Virginia Standard, the mean seasonal flow of 702.2 MGD for the Blackwater River at the point of discharge: Since the wasteload allocation is lower using the North Carolina standard, the Virginia Standard is protected.

$$WLAh(pg/l) = \frac{0.051(500+702.2)}{500} = \underline{0.123 \text{ pg/l}}$$

To first derive the appropriate limit the WLA computer model was forced by using a single datum of 99 for the 1994 permit. The model shows that a Monthly Average and Daily Maximum limit of 0.02 ppq are necessary to protect human health. Therefore, the Monthly Average and Daily Maximum limitations for dioxin are set at 0.02 pg/l (ppq) and the QL is set at 10 ppq. A measured value equal to or greater than the QL shall be considered to exceed the limitation.

The Seasonal Maximum mass limitation is 1.9x10⁻⁶ lb. This value is recalculated for this permit. The Seasonal Maximum mass limitation was derived using the Daily Maximum limitation of 0.02 ppq and the maximum reported seasonal flow of 11,286 million gallons, as follows:

$$(0.02 \text{ pg/l}) (11,286 \text{ MG}) (8.34\#/g) = (1882.5 \text{ pg/l}) (11,286 \text{ MG}) (8.34\#/g) = \underline{0.19 \times 10^{-5} \text{ lb}}$$

The monitoring frequency for dioxin at Outfall 001 is being continued from the previous permit at once per discharge season, with the requirement that the monitoring be performed during the final 14 days of the discharge season, when the facility's C storage pond is nearly empty, retention time is lowest and potential dilution from stormwater is lowest.

Furan (2,3,7,8-TCDF): Neither the Virginia nor the North Carolina water quality standards establish a criterion for furan (2,3,7,8-TCDF). The federal ELGs at 40 CFR §430.24(a)(1) establish a daily maximum technology-based effluent limit of 31.9 pg/l (ppq) for bleach line effluents, which has been applied at Outfall 103 (see Internal Outfall section above). The previous permit contained a

monthly NL monitoring-only requirement for furan at Outfall 001. DMR data from the previous permit term show Daily Maximum furan concentrations ranging from zero to <QL, which are all less than the method quantification level (QL) of 10 ppq (see Attachment 6: DMR data tables). Due to antibacksliding regulation, the effluent limitation for 2,3,7,8-TCDF is being retained as NL.

Based on BPJ, the monitoring frequency for furan at Outfall 001 is being continued at once per discharge season, with the requirement that the monitoring be performed during the final 14 days of the discharge season, when the facility's C storage pond is nearly empty, retention time is lowest and potential dilution from stormwater is lowest. The seasonal mass limitation of NL in the previous permit is also being retained, and the monitoring frequency is being retained at once per discharge season, based on BPJ.

AOX: Previous permits developed AOX limitations based on cumulative data from each of three active bleach lines. At this point in time, the facility only operates one single bleach line (F Bleach Line) as submitted in their VPDES Permit application dated May 18, 2015. FLOW from 2C appl is 2.7 MG

Because the facility is a seasonal discharger and is prohibited from discharging final effluent during specific periods of time, it is classified as a non-continuous discharger under 40 CFR §430.01(k)(2). The monitoring frequency and effluent limitation for AOX is determined by the particular subsections of 40 CFR §430.02 and §430.24, respectively, applicable to the bleach line at various points in time for non-continuous dischargers. The AOX effluent limitations, however, apply at end-of-pipe (Outfall 001). The numeric AOX effluent limitation is applicable at outfall 001. Monitoring frequency was 1/week based on Effluent Guidelines, Effective April 17, 2006, the monitoring frequency was reduced to 1/month, based on BPJ, and allowable under 40 CFR §430.02.

The point of compliance is end-of-pipe at Outfall 001. The numeric values for the AOX limitations are determined by summing the applicable limitations for AOX for each of the contributing bleach lines. With this reissuance, only the F Bleach Line is in active operation.

The resulting concentration-based annual average AOX limitation is 21 mg/l (21.28 mg/l rounded to 21 mg/l). Based on BPJ, because the discharge is non-continuous and there is no practical method for determining the annual average of this non-continuous discharge, the annual average effluent limitation for AOX is being expressed as a Monthly Average AOX limitation of 21 mg/l.

Expression of the Annual Average AOX limitation in mass units is accomplished by calculating the allowable annual mass from the contributing bleach lines (40 CFR §430.24(b)(4)(i)). The resulting mass-based Annual Average AOX limitation of 175,000 lb/year is calculated using the current production of 920 ADTPD and reported flow 2.7 MG (2C appl. data). Based on BPJ, this annual average effluent limitation for AOX is being expressed as a Seasonal Maximum limitation of 175,000 lb/season, because there is no practical method for determining the annual average of this non-continuous discharge.

Annual Average AOX Limitation VATIP Tier 1 (0.26 kg/kg) non-continuous

$$\frac{0.26 \text{ kg}}{\text{Kkg}} \times \frac{920 \text{ T}}{2700000 \text{ gal}} \times \frac{\text{kkg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{T}} \times \frac{1000 \text{ mg}}{\text{g}} \times \frac{1000 \text{ g}}{\text{kg}} \times \frac{\text{gal}}{3.7851} = \frac{239.2}{11.24} = 21.28 \text{ mg/l}$$

Daily Maximum AOX Limitation VATIP Tier 1 (0.58 kg/kg) non-continuous

$$\frac{0.58 \text{ kg}}{\text{Kkg}} \times \frac{920 \text{ T}}{2700000 \text{ gal}} \times \frac{\text{kkg}}{2200 \text{ lb}} \times \frac{2000 \text{ lb}}{\text{T}} \times \frac{1000 \text{ mg}}{\text{g}} \times \frac{1000 \text{ g}}{\text{kg}} \times \frac{\text{gal}}{3.7851} = \frac{533.6}{11.24} = 47.47 \text{ mg/l}$$

Mass Annual Limitation = Seasonal Maximum Limitation

$$\frac{21.28 \text{ mg}}{\text{L}} \times \frac{(2.7 \text{ MG})}{\text{day}} \times \frac{(365 \text{ day})}{\text{yr}} \times \frac{(8.34 \text{ lb})}{\text{gal}} = 174,901.8 = 175,000 \text{ lb/yr}$$

6-19

FORM 2 C - Section III.C INSERT
Internal Outfall Information

"F" Bleach Line

Outfall Number	Bleach Line	Bleaching Sequence	Fiber Furnish	Unfinished Pulp Entering Bleach Plant		
				Maximum Daily Production (ADTPD)	Long-Term Avg Production (ADTPD)	Long-Term Avg Flow (MGD)
103	F	ODED	SW	1,320	920	2.73
103	F	ODED (w/semi)	SW	TBD	TBD	

ADTPD Air Dried Tons per Day

SW Softwood furnish

Semi Semi-bleached pulp comes off the O2 stage without entering the bleach plant

TBD Future fluff pulp product to be determined at a later date

Flows are projected estimates.

Production rate as defined at 40 CFR 430.01n

International Paper - Franklin Mill
 VPDES Permit No VA0004162

Dissolved metals data were not available for outfall 001; total metals data submitted with the application for reissuance are as follows:

Antimony	<5 ug/l
Arsenic	<5 ug/l
Cadmium	< 0.5 ug/l
Copper	<2 ug/l
Lead	<5 ug/l
Mercury	< 0.2 ug/l
Nickel	<5 ug/l
Zinc	17 ug/l

All metals concentrations are below the freshwater acute and chronic numeric water quality criteria, and would not cause a violation of the State's water quality standards at these concentrations. No metals effluent limitations are included in this reissued permit.

No organic compounds were detected above method detection levels using methods 624/625.

Outfall 002

Outfall 002 is storm water only and drains the north rail yard area to the Blackwater River. Form 2F data indicate no significant levels of pollutants. The outfall is subject to the facility storm water pollution prevention plan requirements, which includes inspection and record keeping requirements. Railcar unloading areas are surrounded by containment curbing to prevent accidental release or contamination of storm water. The discharge of any process wastewater from this outfall is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 006 and 007

Outfalls 006 and 007 are storm water only and drain mostly unpaved surfaces and railroad bed to Washole Creek. Form 2F data indicate no significant levels of pollutants. The outfalls are subject to the facility storm water pollution prevention plan requirements; which includes inspection and record keeping requirements. Railcars were temporarily staged in these areas, but are not unloaded. No railcars are currently stored in the area, but could be in the future. The outfall pipes are provided with a valve that can be closed in the event of a spill to prevent accidental release or contamination of storm water. Due to the new non-operational status of the plant, there are no chemicals stored in these areas, and these outfalls are being reclassified to no longer require chemical monitoring.

Outfalls 008, 009, 011

Outfalls 008, 009 and 011 are storm water only and drain natural vegetated areas outside the facility solid waste landfill. The outfalls are subject to the facility storm water pollution prevention plan requirements, which include inspection and record keeping requirements. Storm water draining from these areas does not come into contact with materials entering the landfill. Pesticides, herbicides, soil conditioners and fertilizers are not applied in these areas. The discharge of any process wastewater from this outfall is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 012, 013 and 014

Outfalls 012, 013 and 014 drain areas associated with trailer and construction materials storage. The outfalls are subject to the facility storm water pollution prevention plan requirements, which includes inspection and record keeping requirements. The discharge of any process wastewater from these outfalls is prohibited under part I.A of the permit. Therefore, based on BPJ, no monitoring is being required.

Outfalls 010 and 015

Outfalls 010 and 015 consist of uncontaminated, untreated fresh groundwater used for facility water supply resulting from periodic flushing of the water supply line for maintenance purposes. The discharge of any process wastewater or storm water from these outfalls is prohibited under part I.A of the permit. Because the discharge is uncontaminated and the facility keeps detailed records of its supply water quality for process quality control and other purposes, no monitoring is required.

Mixing Zone Predictions for

International Paper

Effluent Flow = 181 MGD
Stream 7Q10 = 0.72 MGD
Stream 30Q10 = 2 MGD
Stream 1Q10 = 0.25 MGD
Stream slope = 1 ft/ft
Stream width = 200 ft
Bottom scale = 1
Channel scale = 1

Mixing Zone Predictions @ 7Q10

Depth = .1602 ft
Length = 386145.82 ft
Velocity = 8.7803 ft/sec
Residence Time = .509 days

Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

Mixing Zone Predictions @ 30Q10

Depth = .1609 ft
Length = 384798.37 ft
Velocity = 8.8049 ft/sec
Residence Time = .5058 days

Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

Mixing Zone Predictions @ 1Q10

Depth = .1599 ft
Length = 386663.89 ft
Velocity = 8.7712 ft/sec
Residence Time = 12.2454 hours

Recommendation:

A complete mix assumption is appropriate for this situation providing no more than 8.17% of the 1Q10 is used.

8/25/2015 2:45:43 PM

Facility = IP
Chemical = Ammonia
Chronic averaging period = 30
WLAa = 8.4
WLAc = 2.61
Q.L. = 0.2
samples/mo. = 1
samples/wk. = 1

Summary of Statistics:

observations = 11
Expected Value = .631265
Variance = .136519
C.V. = 0.585308
97th percentile daily values = 1.52626
97th percentile 4 day average = 1.03879
97th percentile 30 day average = .758155
< Q.L. = 1
Model used = delta lognormal

No Limit is required for this material

The data are:

0.55
0.28
0.45
0.54
0.99
1.11
0.36
0.39
0.11
0.89
1.08

Current permit limit
carried forward. Anti-
backsliding prohibits limit
from being removed.

Analysis of the Union Camp Corp. effluent data for Ammonia

The statistics for Ammonia are:

Number of values = 41
 Quantification level = .2
 Number < quantification = 0
 Expected value = 4.507973
 Variance = 8.72227
 C.V. = .6551391
 97th percentile = 11.60416
 Statistics used = lognormal

The WLAs for Ammonia are:

Acute WLA = 12.53
 Chronic WLA = 2.15
 Human Health WLA = 1E+07

using 90% pH & T°C (Dec - Mar. data only)

The limits are based on chronic toxicity and 4 samples/month.

Maximum daily limit = 3.194471
 Average monthly limit = 2.15

It is recommended that only the maximum daily limit be used.

DATA

2.7
 4.6
 4.8
 4.5
 4.8
 4.8
 4.9
 4.8
 4.8
 4.9
 4.8
 5
 4.6
 5.1
 5
 4.8
 4.9
 6.4
 6.6
 5.2
 4.7
 .5
 .6
 1.3
 .9
 1.3
 3.8
 4.3
 4.5
 4.5
 4.6
 4.4
 4.3
 4.1
 4.1
 3
 5
 5

4.2
 4.2
 6.3

1994 Permit Issuance
 NH₃ Data & Limit
 Calculation.

See 2015 sheet for limit
 verification.

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: International Paper

Permit No.: VA0004162

Receiving Stream: Blackwater River

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	48.1 mg/L	1Q10 (Annual) =	0.25 MGD	Annual - 1Q10 Mix =	8.17 %	Mean Hardness (as CaCO3) =	108 mg/L
90% Temperature (Annual) =	25.13 deg C	7Q10 (Annual) =	0.72 MGD	- 7Q10 Mix =	100 %	90% Temp (Annual) =	5 deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	2 MGD	- 30Q10 Mix =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	7 SU	1Q10 (Wet season) =	0.25 MGD	Wet Season - 1Q10 Mix =	100 %	90% Maximum pH =	8 SU
10% Maximum pH =	SU	30Q10 (Wet season) =	MGD	- 30Q10 Mix =	100 %	10% Maximum pH =	7.16 SU
Tier Designation (1 or 2) =	1	30Q5 =	MGD			Discharge Flow =	181 MGD
Public Water Supply (PWS) Y/N? =	N	Harmonic Mean =	702.2 MGD				
Trout Present Y/N? =	n						
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	5	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile ^c	0	--	--	na	2.5E+00	--	--	na	1.2E+01	--	--	--	--	--	--	--	--	--	--	na	1.2E+01
Aldrin ^c	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	2.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	na	2.4E-03
Ammonia-N (mg/l) (Yearly)	0	8.41E+00	2.58E+00	na	--	8.42E+00	2.61E+00	na	--	--	--	--	--	--	--	--	--	8.42E+00	2.61E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	8.49E+00	2.43E+00	na	--	8.50E+00	2.43E+00	na	--	--	--	--	--	--	--	--	--	8.50E+00	2.43E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^c	0	--	--	na	5.1E+02	--	--	na	2.5E+03	--	--	--	--	--	--	--	--	--	--	na	2.5E+03
Benzidine ^c	0	--	--	na	2.0E-03	--	--	na	9.8E-03	--	--	--	--	--	--	--	--	--	--	na	9.8E-03
Benzo (a) anthracene ^c	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Benzo (b) fluoranthene ^c	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Benzo (k) fluoranthene ^c	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Benzo (a) pyrene ^c	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Bis(2-Chloroethyl) Ether ^c	0	--	--	na	5.3E+00	--	--	na	2.6E+01	--	--	--	--	--	--	--	--	--	--	na	2.6E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis 2-Ethylhexyl Phthalate ^c	0	--	--	na	2.2E+01	--	--	na	1.1E+02	--	--	--	--	--	--	--	--	--	--	na	1.1E+02
Bromofarm ^c	0	--	--	na	1.4E+03	--	--	na	6.8E+03	--	--	--	--	--	--	--	--	--	--	na	6.8E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	4.3E+00	1.2E+00	na	--	4.3E+00	1.2E+00	na	--	--	--	--	--	--	--	--	--	4.3E+00	1.2E+00	na	--
Carbon Tetrachloride ^c	0	--	--	na	1.6E+01	--	--	na	7.8E+01	--	--	--	--	--	--	--	--	--	--	na	7.8E+01
Chlordane ^c	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	4.0E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	4.0E-02
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^C	0	--	--	na	1.3E+02	--	--	na	6.3E+02	--	--	--	--	--	--	--	--	--	--	na	6.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	6.1E+02	7.9E+01	na	--	6.1E+02	7.9E+01	na	--	--	--	--	--	--	--	--	--	6.1E+02	7.9E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^C	0	--	--	na	1.8E-02	--	--	na	8.8E-02	--	--	--	--	--	--	--	--	--	--	na	8.8E-02
Copper	0	1.4E+01	9.5E+00	na	--	1.4E+01	9.6E+00	na	--	--	--	--	--	--	--	--	--	1.4E+01	9.6E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD ^C	0	--	--	na	3.1E-03	--	--	na	1.5E-02	--	--	--	--	--	--	--	--	--	--	na	1.5E-02
DDE ^C	0	--	--	na	2.2E-03	--	--	na	1.1E-02	--	--	--	--	--	--	--	--	--	--	na	1.1E-02
DDT ^C	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	1.1E-02	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	1.1E-02
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene ^C	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine ^C	0	--	--	na	2.8E-01	--	--	na	1.4E+00	--	--	--	--	--	--	--	--	--	--	na	1.4E+00
Dichlorobromomethane ^C	0	--	--	na	1.7E+02	--	--	na	8.3E+02	--	--	--	--	--	--	--	--	--	--	na	8.3E+02
1,2-Dichloroethane ^C	0	--	--	na	3.7E+02	--	--	na	1.8E+03	--	--	--	--	--	--	--	--	--	--	na	1.8E+03
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^C	0	--	--	na	1.5E+02	--	--	na	7.3E+02	--	--	--	--	--	--	--	--	--	--	na	7.3E+02
1,3-Dichloropropene ^C	0	--	--	na	2.1E+02	--	--	na	1.0E+03	--	--	--	--	--	--	--	--	--	--	na	1.0E+03
Dieldrin ^C	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	2.6E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	2.6E-03
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene ^C	0	--	--	na	3.4E+01	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
Dioxin 2,3,7,8- tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine ^C	0	--	--	na	2.0E+00	--	--	na	9.8E+00	--	--	--	--	--	--	--	--	--	--	na	9.8E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^C	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	3.9E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-03
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	1.9E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	1.9E-03
Hexachlorobenzene ^C	0	--	--	na	2.9E-03	--	--	na	1.4E-02	--	--	--	--	--	--	--	--	--	--	na	1.4E-02
Hexachlorobutadiene ^C	0	--	--	na	1.8E+02	--	--	na	8.8E+02	--	--	--	--	--	--	--	--	--	--	na	8.8E+02
Hexachlorocyclohexane Alpha-BHC ^C	0	--	--	na	4.9E-02	--	--	na	2.4E-01	--	--	--	--	--	--	--	--	--	--	na	2.4E-01
Hexachlorocyclohexane Beta-BHC ^C	0	--	--	na	1.7E-01	--	--	na	8.3E-01	--	--	--	--	--	--	--	--	--	--	na	8.3E-01
Hexachlorocyclohexane Gamma-BHC ^C (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	8.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	8.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane ^C	0	--	--	na	3.3E+01	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	na	1.8E-01	--	--	na	8.8E-01	--	--	--	--	--	--	--	--	--	--	na	8.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^C	0	--	--	na	9.6E+03	--	--	na	4.7E+04	--	--	--	--	--	--	--	--	--	--	na	4.7E+04
Kapone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	1.3E+02	1.5E+01	na	--	1.3E+02	1.5E+01	na	--	--	--	--	--	--	--	--	--	1.3E+02	1.5E+01	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride ^C	0	--	--	na	5.9E+03	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.9E+02	2.2E+01	na	4.6E+03	1.9E+02	2.2E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.9E+02	2.2E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine ^C	0	--	--	na	3.0E+01	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
N-Nitrosodiphenylamine ^C	0	--	--	na	6.0E+01	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
N-Nitrosodi-n-propylamine ^C	0	--	--	na	5.1E+00	--	--	na	2.5E+01	--	--	--	--	--	--	--	--	--	--	na	2.5E+01
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total ^C	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	3.1E-03	--	--	--	--	--	--	--	--	--	1.4E-02	na	3.1E-03
Pentachlorophenol ^C	0	4.1E-01	6.6E-02	na	3.0E+01	4.1E-01	6.6E-02	na	1.5E+02	--	--	--	--	--	--	--	--	4.1E-01	6.6E-02	na	1.5E+02
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	3.9E+00	--	na	--	3.9E+00	--	na	--	--	--	--	--	--	--	--	--	3.9E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	4.0E+01	--	--	na	2.0E+02	--	--	--	--	--	--	--	--	--	--	na	2.0E+02
Tetrachloroethylene ^C	0	--	--	na	3.3E+01	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene ^C	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	1.4E-02	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	1.4E-02
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane ^C	0	--	--	na	1.6E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Trichloroethylene ^C	0	--	--	na	3.0E+02	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2,4,6-Trichlorophenol ^C	0	--	--	na	2.4E+01	--	--	na	1.2E+02	--	--	--	--	--	--	--	--	--	--	na	1.2E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride ^C	0	--	--	na	2.4E+01	--	--	na	1.2E+02	--	--	--	--	--	--	--	--	--	--	na	1.2E+02
Zinc	0	1.3E+02	1.3E+02	na	2.6E+04	1.3E+02	1.3E+02	na	2.6E+04	--	--	--	--	--	--	--	--	1.3E+02	1.3E+02	na	2.6E+04

Notes:

- All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
- Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
- Metals measured as Dissolved, unless specified otherwise
- "C" indicates a carcinogenic parameter
- Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
- Antideg. Baseline = $(0.25(\text{WQC} - \text{background conc.}) + \text{background conc.})$ for acute and chronic
= $(0.1(\text{WQC} - \text{background conc.}) + \text{background conc.})$ for human health
- WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	7.2E-01
Chromium III	4.7E+01
Chromium VI	6.4E+00
Copper	5.8E+00
Iron	na
Lead	9.0E+00
Manganese	na
Mercury	4.6E-01
Nickel	1.3E+01
Selenium	3.0E+00
Silver	1.6E+00
Zinc	5.0E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

Effluent
Hardness is an average from 2015
toxicity sample data. pH is from
data submitted by the facility on 8/24/15.
see attached.

Mix of 8.1790
calculated using max
flow from application
see attached.

Diokin

Implementation:

Implementation is relatively simple and permit limits should be calculated according to the following protocol:

Obtain the harmonic mean stream flow:

Obtain the design flow for the effluent

Apply a mass balance equation to calculate the allowable effluent concentration:

$$WLA = \frac{Cr(Q_d + Q_{hm})}{Q_d}$$

Where: LA = wasteload allocation (concentration)

Q_d = effluent flow

Q_{hm} = stream flow (Harmonic mean)

Cr = Human health criteria from the standards

Note that in a single discharge situation the WLA will be equal to the permit limit. However, where multiple discharges impact the same stream section the total allowable load must be divided among the discharges.

Note: if the stream background concentration is not equal to zero the central office should be contacted for assistance with the proper calculations.

Note: the statistical program WLA.EXE will no longer be used to estimate a reasonable potential for the human health criteria.

Non-Carcinogens

The human health standards for non-carcinogens are based on a shorter exposure time than that for the carcinogens. There is no specified exposure time in the standards but a consensus of agency opinion is that 30 days is the appropriate period over which to consider these criteria. There is also no recurrence interval mentioned but again an agency consensus indicates that 5 years is appropriate.

What this basically says is that if the highest 30 day average concentration that a person is exposed to is equal to the criteria and they are only exposed once every 5 years then no toxic effects to humans should result.

Implementation:

Implementation is relatively simple and permit limits should be calculated according to the following protocol:

Obtain the 30Q5 stream flow:

Obtain the design flow for the effluent

Apply a mass balance equation to calculate the allowable effluent concentration:

VA Surface Water Criteria - Dioxin

2,4-Dinitrotoluene (µg/l) 121142 Known or suspected carcinogen; human health criteria at risk level 10 ⁻⁵					1.1	34
Dioxin 2, 3, 7, 8-tetrachlorodibenzo- p-dioxin (µg/l) 1746016					5.0 E-8	5.1 E-8
1,2-Diphenylhydrazine (µg/l) 122667 Known or suspected carcinogen; human health criteria at risk level 10 ⁻⁵					0.36	2.0
Dissolved Oxygen (µg/l) (See)						
Alpha-Endosulfan (µg/l) 959988 Total concentration alpha and beta- endosulfan shall not exceed aquatic life criteria.	0.22	0.056	0.034	0.0087	62	89

309-00-2	noted)	noted)	0.05 ng/L	0.05 ng/L	noted)	noted)		y
7440-38-2	50	50	10	10				y
7440-39-3			1.0 mg/L					n
enterococcus fecal coliform								NA
71-43-2			1.19	51				y
7440-41-7	6.5							n
7440-43-9	2 (N)	5 (N)			0.4 (N)			n
56-23-5			0.254	1.6			Benzoinform; Carbon Chloride	y
57-74-9	0.004	0.004	0.8 ng/L	0.8 ng/L				y
6887-00-6	230 mg/L (AL)		250 mg/L					n
7782-50-5	17							n
			488					y
			1.0 (N)					NA
	40(N)	40(N)			15(N)			NA
	50	20						NA
7440-50-8	7 (AL)	3 (AL)						n
57-12-5	5 (N)	1						n
94-75-7			100				2,4-Dichlorophenoxy acetic acid	n
50-29-3	0.001	0.001	0.2 ng/L	0.2 ng/L			4,4'-Dichlorodiphenyltrichloroethane	y
8065-48-3	0.1	0.1						n
60-57-1	0.002	0.002	0.05 ng/L	0.05 ng/L				y
1746-01-6			0.000005 ng/L	0.000005 ng/L			2,3,7,8-Tetrachlorodibenzo-p-dioxin	y
	110% sat (N)	110% sat (N)						NA

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§ 430.24

40 CFR Ch. I (7-1-12 Edition)

achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) Except as provided in paragraph (b) of this section—

(1) The following effluent limitations apply with respect to each fiber line that does not use an exclusively TCF bleaching process, as disclosed by the discharger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

SUBPART B

Pollutant or pollutant property	BAT effluent limitations		
	Maximum for any 1 day	Monthly average	
TCDD	<ML ^a	(f)	
TCDF	31.9 ^c	(f)	
Chloroform	6.92 ^d	4.14 ^(g)	
Trichlorosyringol	<ML ^a	(f)	
3,4,5-trichlorocatechol	<ML ^a	(f)	
3,4,6-trichlorocatechol	<ML ^a	(f)	
3,4,5-trichloroguaiacol	<ML ^a	(f)	
3,4,6-trichloroguaiacol	<ML ^a	(f)	
4,5,6-trichloroguaiacol	<ML ^a	(f)	
2,4,5-trichlorophenol	<ML ^a	(f)	
2,4,6-trichlorophenol	<ML ^a	(f)	
Tetrachlorocatechol	<ML ^a	(f)	
Tetrachloroguaiacol	<ML ^a	(f)	
2,3,4,6-tetrachlorophenol	<ML ^a	(f)	
Pentachlorophenol	<ML ^a	(f)	
	Continuous dischargers		Non-continuous dischargers
	Maximum for any 1 day (kg/kg)	Monthly average (kg/kg)	Annual average (kg/kg)
AOX	0.951	0.623	0.512
COD	(e)	(e)	(e)

^a"<ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

^bThis regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

^cPicograms per liter.

^dGrams per 1,000 kilograms (g/kg).

^e[Reserved]

(2) The following effluent limitations apply with respect to each fiber line that uses exclusively TCF bleaching processes, as disclosed by the dis-

charger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

SUBPART B

Pollutant or pollutant property	BAT effluent limitations (TCF)			
	Continuous dischargers		Non-continuous dischargers	
	Maximum for any 1 day	Monthly average	Maximum for any 1 day	Annual average
kg/kg (or pounds per 1,000 lb) of product				
AOX	<ML ^a	(b)	<ML ^a	(b)
COD	(c)	(c)	(c)	(c)

^a"<ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

^bThis regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

^c[Reserved]

Environmental Protection Agency

Pt. 430

- 430.15 New source performance standards (NSPS).
- 430.16 Pretreatment standards for existing sources (PSES).
- 430.17 Pretreatment standards for new sources (PSNS).

Subpart B—Bleached Papergrade Kraft and Soda Subcategory

- 430.20 Applicability; description of the bleached papergrade kraft and soda subcategory.
- 430.21 Specialized definitions.
- 430.22 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.23 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.25 New source performance standards (NSPS).
- 430.26 Pretreatment standards for existing sources (PSES).
- 430.27 Pretreatment standards for new sources (PSNS).
- 430.28 Best management practices (BMPs).

Subpart C—Unbleached Kraft Subcategory

- 430.30 Applicability; description of the unbleached kraft subcategory.
- 430.31 Specialized definitions.
- 430.32 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.33 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.34 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.35 New source performance standards (NSPS).
- 430.36 Pretreatment standards for existing sources (PSES).
- 430.37 Pretreatment standards for new sources (PSNS).

Subpart D—Dissolving Sulfite Subcategory

- 430.40 Applicability; description of the dissolving sulfite subcategory.
- 430.41 Specialized definitions.
- 430.42 Effluent limitations representing the degree of effluent reduction attainable

by the application of best practicable control technology currently available (BPT).

- 430.43 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.44 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.45 New source performance standards (NSPS).
- 430.46 Pretreatment standards for existing sources (PSES).
- 430.47 Pretreatment standards for new sources (PSNS).

Subpart E—Papergrade Sulfite Subcategory

- 430.50 Applicability; description of the papergrade sulfite subcategory.
- 430.51 Specialized definitions.
- 430.52 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.53 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.54 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.55 New source performance standards (NSPS).
- 430.56 Pretreatment standards for existing sources (PSES).
- 430.57 Pretreatment standards for new sources (PSNS).
- 430.58 Best management practices (BMPs).

Subpart F—Semi-Chemical Subcategory

- 430.60 Applicability; description of the semi-chemical subcategory.
- 430.61 Specialized definitions.
- 430.62 Effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT).
- 430.63 Effluent limitations representing the degree of effluent reduction attainable by the best conventional pollutant control technology (BCT).
- 430.64 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).
- 430.65 New source performance standards (NSPS).
- 430.66 Pretreatment standards for existing sources (PSES).

§ 430.20

40 CFR Ch. I (7-1-12 Edition)

standards for new sources (PSNS) if it must certify to the permit-issuing authority that they are not using these biocides: chlorophenolic-containing biocides. Permittees not using chlorophenolic-containing biocides

SUBPART A
[PSNS]

Pollutant or pollutant property	Maximum for any 1 day	
	Milligrams/liter (mg/l)	Kg/kg (or pounds per 1,000 lb) of product ^a
Pentachlorophenol	(0.012)(50.7)/y	0.0025
Trichlorophenol	(0.089)(50.7)/y	0.019

y = wastewater discharged in kgal per ton of product.

^a The following equivalent mass limitations are provided as guidance in cases when POTWs find it necessary to impose mass effluent limitations.

Subpart B—Bleached Papergrade Kraft and Soda Subcategory

§ 430.20 Applicability; description of the bleached papergrade kraft and soda subcategory.

The provisions of this subpart apply to discharges resulting from: The production of market pulp at bleached kraft mills; the integrated production of paperboard, coarse paper, and tissue paper at bleached kraft mills; the integrated production of pulp and fine papers at bleached kraft mills; and the integrated production of pulp and paper at soda mills.

§ 430.21 Specialized definitions.

(a) The general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 and § 430.01 of this part apply to this subpart.

(b) *Baseline BAT limitations or NSPS* means the BAT limitations specified in § 430.24(a) (1) or (2), as applicable, and the NSPS specified in § 430.25(b) (1) or (2), as applicable, that apply to any direct discharger that is not “enrolled” in the “Voluntary Advanced Technology Incentives Program.”

(c) *Enroll* means to notify the permitting authority that a mill intends to participate in the “Voluntary Advanced Technology Incentives Program.” A mill can enroll by indicating its intention to participate in the program either as part of its application for a National Pollutant Discharge Elimination System (NPDES) permit, or through separate correspondence to

the permitting authority as long as the mill signs the correspondence in accordance with 40 CFR 122.22.

(d) *Existing effluent quality* means the level at which the pollutants identified in § 430.24(a)(1) are present in the effluent of a mill “enrolled” in the “Voluntary Advanced Technology Incentives Program.”

(e) *Kappa number* is a measure of the lignin content in unbleached pulp, determined after pulping and prior to bleaching.

(f) *Voluntary Advanced Technology Incentives Program* is the program established under § 430.24(b) (for existing direct dischargers) and § 430.25(c) (for new direct dischargers) whereby participating mills agree to accept enforceable effluent limitations and conditions in their NPDES permits that are more stringent than the “baseline BAT limitations or NSPS” that would otherwise apply, in exchange for regulatory- and enforcement-related rewards and incentives.

§ 430.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

Environmental Protection Agency

§ 430.22

SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	15.45	8.05	4.52
TSS	30.4	16.4	9.01
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	13.65	7.1	3.99
TSS	24.0	12.9	7.09
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	10.6	5.5	3.09
TSS	22.15	11.9	6.54
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for soda facilities where pulp and paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	13.7	7.1	3.99
TSS	24.5	13.2	7.25
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

§ 430.22

40 CFR Ch. I (7-1-12 Edition)

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, resulting from the use of wet barking operations, which may be discharged by a point source subject to the provisions of this subpart. These

limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs which are subject to such operations:

SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	2.3	1.2	0.70
TSS	5.3	2.85	1.55
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	2.25	1.2	0.65
TSS	5.75	3.1	1.70
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	1.95	1.0	0.55
TSS	5.3	2.85	1.55
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

Environmental Protection Agency

§ 430.22

SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD ₅	2.05	1.1	0.60
TSS	5.25	2.8	1.55
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

(c) The following limitations establish the quantity or quality of pollutants or pollutant parameters, controlled by this section, resulting from the use of log washing or chip washing operations, which may be discharged by a point source subject to the provisions of this subpart. These limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs and/or chips which are subject to such operations:

sions of this subpart. These limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs and/or chips which are subject to such operations:

SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD ₅	0.2	0.1	0.1
TSS	0.6	0.3	0.15
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD ₅	0.25	0.15	0.05
TSS	0.65	0.35	0.20
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

6-38

§ 430.22

40 CFR Ch. I (7-1-12 Edition)

SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.2	0.1	0.05
TSS	0.55	0.3	0.15
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.15	0.1	0.05
TSS	0.5	0.25	0.15
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, resulting from the use of log flumes or log ponds, which may be discharged by a point source subject to the provisions of this subpart. These

limitations are in addition to the limitations set forth in paragraph (a) of this section and shall be calculated using the proportion of the mill's total production due to use of logs which are subject to such operations:

SUBPART B

[BPT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.4	0.2	0.15
TSS	1.15	0.6	0.35
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

Environmental Protection Agency

§ 430.24

SUBPART B

[BPT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.45	0.25	0.10
TSS	1.25	0.7	0.35
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for bleached kraft facilities where pulp and fine papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.35	0.2	0.10
TSS	1.15	0.6	0.30
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

SUBPART B

[BPT effluent limitations for soda facilities where pulp and papers are produced]

Pollutant or pollutant parameter	Kg/kg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	0.3	0.2	0.10
TSS	1.1	0.55	0.35
pH	(¹)	(¹)	(¹)

¹ Within the range of 5.0 to 9.0 at all times.

§ 430.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). The limitations shall be the same as those

specified in § 430.22 of this subpart for the best practicable control technology currently available (BPT).

§ 430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must

6-40

Environmental Protection Agency

§ 430.24

(b) The following limitations apply with respect to each fiber line enrolled in the Voluntary Advanced Technology Incentives Program:

(1) Stage 1 Limitations: Numeric limitations that are equivalent to the discharger's existing effluent quality or the discharger's current effluent limitations established under CWA section 301(b)(2), whichever are more stringent, for the pollutants identified in paragraph (a)(1) of this section (with the exception of COD). For AOX, the permitting authority must determine existing effluent quality for each fiber line enrolled in the Voluntary Advanced Technology Incentives Program at the end of the pipe based on loadings attributable to that fiber line. For the remaining pollutants, with the exception of COD, the permitting authority must determine existing effluent quality for each fiber line enrolled in the Voluntary Advanced Technology Incentives Program at the point where the wastewater containing those pollutants leaves the bleach plant. These limitations must be recalculated each time the NPDES permit of a discharger enrolled in the Voluntary Advanced Technology Incentives Program is reissued, up to:

(i) April 15, 2004 for all pollutants in paragraph (a)(1) of this section except AOX; and

(ii) The date specified in paragraph (b)(4)(ii) of this section for achieving

the applicable AOX limitation specified in paragraph (b)(4)(i).

(2) Best Professional Judgment Milestones: Narrative or numeric limitations and/or special permit conditions, as appropriate, established by the permitting authority on the basis of his or her best professional judgment that reflect reasonable interim milestones toward achievement of the effluent limitations specified in paragraphs (b)(3) and (b)(4) of this section, as applicable, after consideration of the Milestones Plan submitted by the discharger in accordance with paragraph (c) of this section.

(3) Six-year Milestones: By April 15, 2004 all dischargers enrolled in the Voluntary Advanced Technology Incentives Program must achieve the following:

(i) The effluent limitations specified in paragraph (a)(1) of this section, except that, with respect to AOX, dischargers subject to Tier I effluent limitations specified in paragraph (b)(4)(i) of this section must achieve the AOX limitation specified in that paragraph; or

(ii) For dischargers that use exclusively TCF bleaching processes as of April 15, 2004, the effluent limitations specified in paragraph (a)(2) of this section.

(4)(i) Stage 2 Limitations:

ULTIMATE VOLUNTARY ADVANCED TECHNOLOGY INCENTIVES PROGRAM BAT LIMITATIONS

Tier	Kappa number (annual average)	Filtrate recycling	Total pulping area condensate, evaporator condensate, and bleach plant wastewater flow (annual average)	AOX (kg/kg)			
				Non-TCF ^a		TCF	
				Maximum for any 1 day	Annual average	Maximum for any 1 day	Annual average
Tier I ...	20 (softwood furnish) ... 13 (Hardwood furnish)	(^b)	N/A	0.58	0.26	<ML ^c	(^d)
Tier II ...	NA	(^b)	10 cubic meters/kg	0.23	0.10	<ML ^c	(^d)
Tier III	N/A	(^b)	5 cubic meters/kg	0.11	0.05	<ML ^c	(^d)

^a Non-TCF: Pertains to any fiber line that does not use exclusively TCF bleaching processes.

^b Complete recycling to the chemical recovery system of all filtrates generated prior to bleaching. Under Tier I, this includes all filtrates up to the point where kappa number is measured.

^c "<ML" means less than the minimum level specified in § 430.01(i) for the particular pollutant.

^d This regulation does not specify this type of limitation for this pollutant; however, permitting authorities may do so as appropriate.

N/A means "not applicable."

(ii) Deadlines.

(A) A discharger enrolled in Tier I of the Voluntary Advanced Technology

Incentives Program must achieve the Tier I limitations in paragraph (b)(4)(i) of this section by April 15, 2004.

6-41

§ 430.24

40 CFR Ch. I (7-1-12 Edition)

(B) A discharger enrolled in Tier II of the Voluntary Advanced Technology Incentives Program must achieve the Tier II limitations in paragraph (b)(4)(i) of this section by April 15, 2009.

(C) A discharger enrolled in Tier III of the Voluntary Advanced Technology Incentives Program must achieve the Tier III limitations in paragraph (b)(4)(i) of this section by April 15, 2014.

(c) All dischargers enrolled or intending to enroll in the Voluntary Advanced Technology Incentives Program must submit to the NPDES permitting authority a Milestones Plan covering all fiber lines enrolled or intended to be enrolled in that program at their mill by October 5, 1999 or the date the discharger applies for an NPDES permit containing limitations and conditions based on paragraph (b) of this section, whichever is later. Mills may claim all or part of the Milestones Plan as confidential business information (CBI) in accordance with 40 CFR part 2 and 40 CFR 122.7. If a mill claims all or part of the plan as CBI, the mill must prepare and submit to the NPDES permitting authority a summary of the plan for public release. The Milestones Plan must include the following information:

(1) A description of each anticipated new technology component or process modification that the discharger intends to implement in order to achieve the limitations in paragraphs (b)(3) and (b)(4) of this section;

(2) A master schedule showing the sequence of implementing the new technology components or process modifications and identifying critical path relationships within the sequence;

(3) A schedule for each individual new technology component or process modification that includes:

(i) The anticipated initiation and completion dates of construction, installation and operational "shake-

down" period associated with the technology components or process modifications and, when applicable, the anticipated dates of initiation and completion of associated research, process development, and mill trials;

(ii) The anticipated dates that the discharger expects the technologies and process modifications selected to achieve the limitations specified in paragraphs (b)(3) and (b)(4) of this section to be operational on a full-scale basis; and

(iii) The anticipated magnitude of reductions in effluent quantity and the anticipated improvements in effluent quality associated with each technology and process modification implemented as measured at the bleach plant (for bleach plant, pulping area and evaporator condensates flow and BAT parameters other than Adsorbable Organic Halides (AOX)) and at the end of the pipe (for AOX), and the dates the discharger expects those reductions and improvements to be achieved;

(4) Contingency plans in the event that any technology or process specified in the Milestones Plan need to be adjusted or alternative approaches developed to ensure that the limitations specified in paragraphs (b)(3) and (b)(4) of this section are met; and

(5) A signature by the responsible corporate officer as defined in 40 CFR 122.22.

(d) The following additional effluent limitations apply to all dischargers subject to this section in accordance with the previous subcategorization scheme unless the discharger certifies to the permitting authority that it is not using these compounds as biocides. Also, for non-continuous dischargers, concentration limitations (mg/l) shall apply. Concentration limitations will only apply to non-continuous dischargers:

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol	0.0019	(0.011)(41.6)/y

6 42

Environmental Protection Agency

§ 430.25

SUBPART B—Continued

[Supplemental BAT effluent limitations for bleached kraft facilities where market pulp is produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Trichlorophenol y = wastewater discharged in kgal per ton product.	0.012	(0.068)(41.6)/y

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where paperboard, coarse paper, and tissue paper are produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol	0.0016	(0.11)(35.4)/y
Trichlorophenol	0.010	(0.068)(35.4)/y
y = wastewater discharged in kgal per ton of product.		

SUBPART B

[Supplemental BAT effluent limitations for bleached kraft facilities where pulp and fine papers are produced and soda facilities where pulp and paper are produced]

Pollutant or pollutant property	Maximum for any 1 day	
	kg/kg (or pounds per 1,000 lb) of product	Milligrams/liter
Pentachlorophenol	0.0014	(0.011) (30.9)/y
Trichlorophenol	0.0088	(0.068) (30.9)/y
y = wastewater discharged in kgal per ton of product.		

(e) Pursuant to 40 CFR 122.44(i) and 122.45(h), a discharger must demonstrate compliance with the effluent limitations in paragraph (a)(1) or (b)(3) of this section, as applicable, by monitoring for all pollutants (except for AOX and COD) at the point where the wastewater containing those pollutants leaves the bleach plant. The permitting authority may impose effluent limitations and/or monitoring requirements on internal wastestreams for any other pollutants covered in this section as appropriate under 40 CFR 122.44(i) and 122.45(h). In addition, a discharger subject to a limitation on total pulping area condensate, evaporator condensate, and bleach plant wastewater flow under paragraph (b)(4)(i) of this section, for Tier II and Tier III, must demonstrate compliance with that limitation by establishing and maintaining flow measurement equip-

ment to monitor these flows at the point or points where they leave the pulping area, evaporator area, and bleach plant.

[63 FR 18635, Apr. 15, 1998; 63 FR 42239, Aug. 7, 1998, as amended at 64 FR 36586, July 7, 1999]

§ 430.25 New source performance standards (NSPS).

New sources subject to this subpart must achieve the following new source performance standards (NSPS), as applicable.

(a) The following standards apply to each new source that commenced discharge after June 15, 1988 and before June 15, 1998, provided that the new source was constructed to meet these standards:

- [Corrections](#)
- [Latest Updates](#)
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§430.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best available technology economically achievable (BAT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

(a) Except as provided in paragraph (b) of this section—

(1) The following effluent limitations apply with respect to each fiber line that does not use an exclusively TCF bleaching process, as disclosed by the discharger in its NPDES permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22:

Subpart B

40CFR 430.24(a)(1)

Pollutant or pollutant property	BAT effluent limitations	
	Maximum for any 1 day	Monthly average
TCDD	<ML ^a	(b)
TCDF	31.9 ^c	(b)
Chloroform	6.92 ^d	4.14 ^(d)
Trichlorosyringol	<ML ^a	(b)
3,4,5-trichlorocatechol	<ML ^a	(b)
3,4,6-trichlorocatechol	<ML ^a	(b)
3,4,5-trichloroguaiacol	<ML ^a	(b)
3,4,6-trichloroguaiacol	<ML ^a	(b)
4,5,6-trichloroguaiacol	<ML ^a	(b)
2,4,5-trichlorophenol	<ML ^a	(b)
2,4,6-trichlorophenol	<ML ^a	(b)
Tetrachlorocatechol	<ML ^a	(b)
Tetrachloroguaiacol	<ML ^a	(b)
2,3,4,6-tetrachlorophenol	<ML ^a	(b)
Pentachlorophenol	<ML ^a	(b)

d = grams per 1000 Kilograms (g/Kkg)

6-44

§ 430.02

40 CFR Ch. I (7-1-10 Edition)

CAS number	Pollutant	Minimum monitoring frequency		
		Non-ECF ^a	Advanced ECF ^{b,f}	TCF ^c
2539175	Tetrachloroguaiacol	Monthly	Monthly	(^d)
2539266	Trichlorosyringol	Monthly	Monthly	(^d)
2668248	4,5,6-trichloroguaiacol	Monthly	Monthly	(^d)
32139723	3,4,6-trichlorocatechol	Monthly	Monthly	(^d)
56961207	3,4,5-trichlorocatechol	Monthly	Monthly	(^d)
57057837	3,4,5-trichloroguaiacol	Monthly	Monthly	(^d)
58902	2,3,4,6-tetrachlorophenol	Monthly	Monthly	(^d)
60712449	3,4,6-trichloroguaiacol	Monthly	Monthly	(^d)
87865	Pentachlorophenol ^e	Monthly	Monthly	(^d)
88062	2,4,6-trichlorophenol ^e	Monthly	Monthly	(^d)
95954	2,4,5-trichlorophenol ^e	Monthly	Monthly	(^d)
1746016	2,3,7,8-TCDD	Monthly	Monthly	(^d)
51207319	2,3,7,8-TCDF	Monthly	Monthly	(^d)
67663	Chloroform	Weekly	Monthly	(^d)

^a Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

^b Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes, or exclusively ECF and TCF bleaching processes as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

^c TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

^d This regulation does not specify a limit for this pollutant for TCF bleaching processes.

^e Monitoring frequency does not apply to this compound when used as a biocide. The permitting authority must determine the appropriate monitoring frequency for this compound, when used as a biocide, under 40 CFR 122.44(i).

^f Monitoring requirements for these pollutants by mills certifying as Advanced ECF in their NPDES permit application or other communication to the permitting authority will be suspended after one year of monitoring. The permitting authority must determine the appropriate monitoring frequency for these pollutants beyond that time under 40 CFR 122.44(i).

(d) *Reduced monitoring frequencies for AOX under the Voluntary Advanced Technology Incentives Program (year one).* The following monitoring frequencies apply to direct dischargers enrolled in the Voluntary Advanced

Technology Incentives Program established under Subpart B of this part for a duration of one year after achievement of the applicable BAT limitations specified in § 430.24(b)(4)(i) or NSPS specified in § 430.25(c)(2):

CAS number	Pollutant	Non-ECF, any tier ^a	Advanced ECF, any tier ^b	TCF, any tier ^c
59473040	AOX	Daily	Weekly	None specified.

^a Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

^b Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes or exclusively ECF and TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

^c TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

(e) *Reduced monitoring frequencies for AOX under the Voluntary Advanced Technology Incentives Program (years two through five).* The following monitoring frequencies apply to mills enrolled in the Voluntary Advanced Technology Incentives Program estab-

lished under Subpart B of this part for a duration of four years starting one year after achievement of the applicable BAT limitations specified in § 430.24(b)(4)(i) or NSPS specified in § 430.25(c)(2):

CAS number	Pollutant	Non-ECF any tier ^a	Advanced ECF—tier I ^b	Advanced ECF—tier II ^b	Advanced ECF—tier III ^b	TCF—any tier ^c
59473040	AOX	Daily	Monthly	Quarterly	Annually	None specified.

^a Non-ECF: Pertains to any fiber line that does not use exclusively ECF or TCF bleaching processes.

^b Advanced ECF: Pertains to any fiber line that uses exclusively Advanced ECF bleaching processes or exclusively ECF and TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22. Advanced ECF consists of the use of extended delignification or other technologies that achieve at least the Tier I performance levels specified in § 430.24(b)(4)(i).

^c TCF: Pertains to any fiber line that uses exclusively TCF bleaching processes, as disclosed by the discharger in its permit application under 40 CFR 122.21(g)(3) and certified under 40 CFR 122.22.

30

5-45

International Paper - Franklin

1/42

Permit Type:VPDES															
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-10	001	001	FLOW	141	NL	165	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	001	FLOW	113	NL	152	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	001	FLOW	61	NL	84	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	001	FLOW	37	NL	58	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	001	FLOW	32	NL	34	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-12	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	001	FLOW	44	NL	57	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	001	FLOW	35	NL	44	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	

Attachment 6

2/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	001	FLOW	125	NL	185	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	001	FLOW	90	NL	153	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	001	FLOW	112	NL	156	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	001	FLOW	97	NL	142	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	001	FLOW	134	NL	181	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	001	FLOW	58	NL	112	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	002	pH	-	*****	-	*****	7.3	6.0	-	*****	7.4	9.0	
VA0004162	10-Feb-10	001	002	pH	-	*****	-	*****	7.3	6.0	-	*****	7.7	9.0	
VA0004162	10-Mar-10	001	002	pH	-	*****	-	*****	7.5	6.0	-	*****	7.9	9.0	
VA0004162	10-Apr-10	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	

3/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Feb-11	001	002	pH	-	*****	-	*****	8.4	6.0	-	*****	8.6	9.0	
VA0004162	10-Mar-11	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.4	9.0	
VA0004162	10-Apr-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Dec-11	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Feb-12	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.4	9.0	
VA0004162	10-Mar-12	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.0	9.0	
VA0004162	10-Apr-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Dec-12	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Feb-13	001	002	pH	-	*****	-	*****	7.2	6.0	-	*****	8.2	9.0	
VA0004162	10-Mar-13	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.0	9.0	
VA0004162	10-Apr-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Dec-13	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Feb-14	001	002	pH	-	*****	-	*****	7.9	6.0	-	*****	8.1	9.0	

4/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	002	pH	-	*****	-	*****	7.4	6.0	-	*****	8.0	9.0	
VA0004162	10-Apr-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Dec-14	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Feb-15	001	002	pH	-	*****	-	*****	7.8	6.0	-	*****	8.0	9.0	
VA0004162	10-Mar-15	001	002	pH	-	*****	-	*****	6.9	6.0	-	*****	7.9	9.0	
VA0004162	10-Apr-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Dec-15	001	002	pH	-	*****	-	*****	-	6.0	-	*****	-	9.0	
VA0004162	10-Jan-10	001	008	COD	-	*****	-	*****	-	*****	154	NL	178	NL	
VA0004162	10-Feb-10	001	008	COD	-	*****	-	*****	-	*****	160	NL	166	NL	
VA0004162	10-Mar-10	001	008	COD	-	*****	-	*****	-	*****	158	NL	166	NL	
VA0004162	10-Apr-10	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-10	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-11	001	008	COD	-	*****	-	*****	-	*****	82	NL	84	NL	
VA0004162	10-Mar-11	001	008	COD	-	*****	-	*****	-	*****	84	NL	97	NL	
VA0004162	10-Apr-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-11	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	

5/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-12	001	008	COD	-	*****	-	*****	-	*****	68	NL	75	NL	
VA0004162	10-Mar-12	001	008	COD	-	*****	-	*****	-	*****	68	NL	71	NL	
VA0004162	10-Apr-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-12	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-13	001	008	COD	-	*****	-	*****	-	*****	204	NL	252	NL	
VA0004162	10-Mar-13	001	008	COD	-	*****	-	*****	-	*****	236	NL	238	NL	
VA0004162	10-Apr-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-13	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-14	001	008	COD	-	*****	-	*****	-	*****	204	NL	213	NL	
VA0004162	10-Mar-14	001	008	COD	-	*****	-	*****	-	*****	230	NL	237	NL	
VA0004162	10-Apr-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-14	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-15	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-15	001	008	COD	-	*****	-	*****	-	*****	232	NL	244	NL	
VA0004162	10-Mar-15	001	008	COD	-	*****	-	*****	-	*****	258	NL	272	NL	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Apr-15	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-15	001	008	COD	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-10	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.0	2	1.1	NL	
VA0004162	10-Feb-10	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.04	2	1.06	NL	
VA0004162	10-Mar-10	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.89	2	0.97	NL	
VA0004162	10-Apr-10	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-10	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-11	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Feb-11	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.2	2	1.24	NL	
VA0004162	10-Mar-11	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.19	2	1.23	NL	
VA0004162	10-Apr-11	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-11	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-12	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Feb-12	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.72	2	0.73	NL	
VA0004162	10-Mar-12	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.51	2	0.79	NL	
VA0004162	10-Apr-12	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-12	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	

6/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.83	2	0.85	NL	
VA0004162	10-Mar-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.78	2	0.81	NL	
VA0004162	10-Apr-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-13	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Feb-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.02	2	1.09	NL	
VA0004162	10-Mar-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	0.96	2	1.06	NL	
VA0004162	10-Apr-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-14	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Feb-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.40	2	1.45	NL	
VA0004162	10-Mar-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	1.37	2	1.40	NL	
VA0004162	10-Apr-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Dec-15	001	012	PHOSPHORUS, TOTAL	-	*****	-	*****	-	*****	-	2	-	NL	
VA0004162	10-Jan-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.30	NL	2.90	NL	
VA0004162	10-Feb-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.41	NL	2.51	NL	
VA0004162	10-Mar-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	3.1	NL	4.0	NL	
VA0004162	10-Apr-10	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	

7/42

8/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-11	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-11	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	3.2	NL	3.6	NL	
VA0004162	10-Mar-11	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	3.2	NL	4.0	NL	
VA0004162	10-Apr-11	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-11	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-12	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-12	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	3.0	NL	3.4	NL	
VA0004162	10-Mar-12	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	3.2	NL	3.9	NL	
VA0004162	10-Apr-12	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-12	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-13	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-13	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	2.0	NL	2.7	NL	
VA0004162	10-Mar-13	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	1.8	NL	1.9	NL	
VA0004162	10-Apr-13	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-13	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-14	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-14	001	013	NITROGEN, TOTAL (AS-		*****	-	*****	-	*****	2.80	NL	3.60	NL	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.3	NL	2.6	NL	
VA0004162	10-Apr-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-14	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Feb-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	2.48	NL	3.00	NL	
VA0004162	10-Mar-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	3.05	NL	4.50	NL	
VA0004162	10-Apr-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Dec-15	001	013	NITROGEN, TOTAL (AS	-	*****	-	*****	-	*****	-	NL	-	NL	
VA0004162	10-Jan-10	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	0.27	2.15	0.55	3.19	
VA0004162	10-Feb-10	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	0.25	2.15	0.28	3.19	
VA0004162	10-Mar-10	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	0.35	2.15	0.45	3.19	
VA0004162	10-Apr-10	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-10	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Jan-11	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Feb-11	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	0.33	2.15	0.54	3.19	
VA0004162	10-Mar-11	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	0.51	2.15	0.99	3.19	
VA0004162	10-Apr-11	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-11	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	

9/42

10/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Feb-12	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.65	2.15	1.11	3.19	
VA0004162	10-Mar-12	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.27	2.15	0.36	3.19	
VA0004162	10-Apr-12	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-12	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Jan-13	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Feb-13	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.16	2.15	0.39	3.19	
VA0004162	10-Mar-13	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.05	2.15	0.11	3.19	
VA0004162	10-Apr-13	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-13	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Jan-14	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Feb-14	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.43	2.15	0.89	3.19	
VA0004162	10-Mar-14	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	<QL	2.15	<QL	3.19	
VA0004162	10-Apr-14	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-14	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Jan-15	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Feb-15	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.60	2.15	1.08	3.19	
VA0004162	10-Mar-15	001	305	AMMONIA, AS N NOV--	-	*****	-	*****	-	*****	0.27	2.15	0.37	3.19	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Apr-15	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Dec-15	001	305	AMMONIA, AS N NOV-	-	*****	-	*****	-	*****	-	2.15	-	3.19	
VA0004162	10-Jan-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Feb-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-10	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Feb-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-11	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Feb-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-12	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	

11/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-13	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Feb-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-14	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Feb-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	NR	0.12	NR	0.12	
VA0004162	10-Mar-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	<QL	0.12	<QL	0.12	
VA0004162	10-Apr-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Dec-15	001	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	0.12	-	0.12	
VA0004162	10-Jan-10	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Feb-10	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Mar-10	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-10	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	

12/42

13/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-11	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Feb-11	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Mar-11	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-11	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Dec-11	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-12	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Feb-12	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Mar-12	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-12	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Dec-12	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-13	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Feb-13	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Mar-13	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-13	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Dec-13	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-14	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Feb-14	001	307	2,3,7,8-TETRACHLOR	-	*****	-	*****	-	*****	-	*****	NR	NL	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-14	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Dec-14	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-15	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Feb-15	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	NR	NL	
VA0004162	10-Mar-15	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	<QL	NL	
VA0004162	10-Apr-15	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Dec-15	001	307	2,3,7,8-TETRACHLORC	-	*****	-	*****	-	*****	-	*****	-	NL	
VA0004162	10-Jan-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	5	79	12	158	
VA0004162	10-Feb-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	9	79	13	158	
VA0004162	10-Mar-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	8	79	9	158	
VA0004162	10-Apr-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Dec-10	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Jan-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Feb-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	<QL	79	<QL	158	
VA0004162	10-Mar-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	79	7	158	
VA0004162	10-Apr-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Dec-11	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	

14/42

15/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Feb-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	<QL	79	<QL	158	
VA0004162	10-Mar-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	3	79	8	158	
VA0004162	10-Apr-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	79	-	158	
VA0004162	10-Dec-12	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Jan-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Feb-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	127	9	254	
VA0004162	10-Mar-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	6	127	7	254	
VA0004162	10-Apr-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Dec-13	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Jan-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Feb-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	2	127	6	254	
VA0004162	10-Mar-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	16	127	23	254	
VA0004162	10-Apr-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Dec-14	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Jan-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Feb-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	4	127	9	254	
VA0004162	10-Mar-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	7	127	8	254	

16/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Apr-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Dec-15	001	381	BOD5, NOV-MAR	-	*****	-	*****	-	*****	-	127	-	254	
VA0004162	10-Jan-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	7	153	16.8	306	
VA0004162	10-Feb-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	9.7	153	11.9	306	
VA0004162	10-Mar-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	13	153	18	306	
VA0004162	10-Apr-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Dec-10	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Jan-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Feb-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.9	153	8.2	306	
VA0004162	10-Mar-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	6.6	153	8.4	306	
VA0004162	10-Apr-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Dec-11	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Jan-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Feb-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	4.3	153	6.0	306	
VA0004162	10-Mar-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	51	153	146	306	
VA0004162	10-Apr-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	153	-	306	
VA0004162	10-Dec-12	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Jan-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.4	261	7.4	522	
VA0004162	10-Mar-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	8	261	9	522	
VA0004162	10-Apr-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Dec-13	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Jan-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Feb-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	6.2	261	7.5	522	
VA0004162	10-Mar-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	16	261	20	522	
VA0004162	10-Apr-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Dec-14	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Jan-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Feb-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	5.7	261	8.7	522	
VA0004162	10-Mar-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	12	261	17	522	
VA0004162	10-Apr-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Dec-15	001	422	TSS, NOV-MAR	-	*****	-	*****	-	*****	-	261	-	522	
VA0004162	10-Jan-10	001	633	BOD5 **6	-	*****	0.13	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	633	BOD5 **6	-	*****	0.40	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	633	BOD5 **6	-	*****	0.505	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	

17/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	633	BOD5 **6	-	*****	0	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	633	BOD5 **6	-	*****	0.008	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	633	BOD5 **6	-	*****	0	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	633	BOD5 **6	-	*****	0.010	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13	001	633	BOD5 **6	-	*****	0.04	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	633	BOD5 **6	-	*****	0.11	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	633	BOD5 **6	-	*****	0.04	4.4	-	*****	-	*****	-	*****	

18/42

19/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	633	BOD5 **6	-	*****	0.26	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	633	BOD5 **6	-	*****	0.11	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	633	BOD5 **6	-	*****	0.19	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	633	BOD5 **6	-	*****	-	4.4	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	634	TSS **6	-	*****	0.23	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	634	TSS **6	-	*****	0.53	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	634	TSS **6	-	*****	0.675	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	634	TSS **6	-	*****	0.03	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	634	TSS **6	-	*****	0.08	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	634	TSS **6	-	*****	0.02	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	634	TSS **6	-	*****	0.21	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13	001	634	TSS **6	-	*****	0.14	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	634	TSS **6	-	*****	0.21	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	634	TSS **6	-	*****	0.15	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	634	TSS **6	-	*****	0.35	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	634	TSS **6	-	*****	0.17	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	634	TSS **6	-	*****	0.29	2.88	-	*****	-	*****	-	*****	

20/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Apr-15	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	634	TSS **6	-	*****	-	2.88	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	635	AMMONIA AS N **6	0.01	0.22	0.01	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	635	AMMONIA AS N **6	0.007	0.22	0.018	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	635	AMMONIA AS N **6	0.004	0.22	0.022	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	635	AMMONIA AS N **6	0.002	0.22	0.002	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	635	AMMONIA AS N **6	0.003	0.22	0.005	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	635	AMMONIA AS N **6	0.004	0.22	0.004	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	635	AMMONIA AS N **6	0.001	0.22	0.006	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	

2/1/12

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	635	AMMONIA AS N **6	0.005	0.22	0.005	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	635	AMMONIA AS N **6	0.0002	0.22	0.005	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	635	AMMONIA AS N **6	0.009	0.22	0.009	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	635	AMMONIA AS N **6	0.0	0.22	0.01	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	635	AMMONIA AS N **6	0.02	0.22	0.02	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	635	AMMONIA AS N **6	0.002	0.22	0.022	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	635	AMMONIA AS N **6	-	0.22	-	0.32	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	636	PHOSPHORUS,TOTAL	-	*****	0.03	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	636	PHOSPHORUS,TOTAL	-	*****	0.066	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	636	PHOSPHORUS,TOTAL	-	*****	0.077	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	

23/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	636	PHOSPHORUS,TOTAL	-	*****	0.007	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	636	PHOSPHORUS,TOTAL	-	*****	0.015	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-12	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	636	PHOSPHORUS,TOTAL	-	*****	0.004	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	636	PHOSPHORUS,TOTAL	-	*****	0.007	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13	001	636	PHOSPHORUS,TOTAL	-	*****	0.02	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	636	PHOSPHORUS,TOTAL	-	*****	0.03	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	636	PHOSPHORUS,TOTAL	-	*****	0.025	0.2	-	*****	-	*****	-	*****	

23/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	636	PHOSPHORUS,TOTAL	-	*****	0.04	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	636	PHOSPHORUS,TOTAL	-	*****	0.04	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	636	PHOSPHORUS,TOTAL	-	*****	0.06	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	636	PHOSPHORUS,TOTAL	-	*****	-	0.2	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	637	2,3,7,8-TCDD **5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	637	2,3,7,8-TCDD **5	-	*****	0	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	637	2,3,7,8-TCDD **5	-	*****	-	1.1	-	*****	-	*****	-	*****	

94/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	637	2,3,7,8-TCDD **-5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	637	2,3,7,8-TCDD **-5	-	*****	0	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13	001	637	2,3,7,8-TCDD **-5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	637	2,3,7,8-TCDD **-5	-	*****	0	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	637	2,3,7,8-TCDD **-5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	637	2,3,7,8-TCDD **-5	-	*****	0	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	637	2,3,7,8-TCDD **-5	-	*****	NR	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	637	2,3,7,8-TCDD **-5	-	*****	0	1.1	-	*****	-	*****	-	*****	

25/42

26/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Apr-15	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	637	2,3,7,8-TCDD **-5	-	*****	-	1.1	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	638	2,3,7,8-TCDF **-5	-	*****	NR	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	638	2,3,7,8-TCDF **-5	-	*****	0	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	001	638	2,3,7,8-TCDF **-5	-	*****	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	001	737	AOX (Adsorbable Orga	18713	NL	18713	723000	-	*****	0.550	133	0.550	280	
VA0004162	10-Feb-10	001	737	AOX (Adsorbable Orga	15756	NL	34468	723000	-	*****	0.537	133	0.537	280	
VA0004162	10-Mar-10	001	737	AOX (Adsorbable Orga	6621	NL	41089	723000	-	*****	0.522	133	0.522	280	
VA0004162	10-Apr-10	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	

27/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-10	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-11	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Feb-11	001	737	AOX (Adsorbable Orga	898	NL	898	723000	-	*****	0.144	133	0.144	280	
VA0004162	10-Mar-11	001	737	AOX (Adsorbable Orga	753	NL	1635	723000	-	*****	0.117	133	0.117	280	
VA0004162	10-Apr-11	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Dec-11	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-12	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Feb-12	001	737	AOX (Adsorbable Orga	427	NL	427	723000	-	*****	0.07	133	0.07	280	
VA0004162	10-Mar-12	001	737	AOX (Adsorbable Orga	477	NL	904	723000	-	*****	0.096	133	0.096	280	
VA0004162	10-Apr-12	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Dec-12	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-13	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Feb-13	001	737	AOX (Adsorbable Orga	9655	NL	9655	723000	-	*****	0.370	133	0.370	280	
VA0004162	10-Mar-13	001	737	AOX (Adsorbable Orga	3477	NL	13132	723000	-	*****	0.330	133	0.330	280	
VA0004162	10-Apr-13	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Dec-13	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-14	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Feb-14	001	737	AOX (Adsorbable Orga	22229	NL	22229	723000	-	*****	0.911	133	0.911	280	

98/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Mar-14	001	737	AOX (Adsorbable Orga	13523	NL	35748	723000	-	*****	1.19	133	1.19	280	
VA0004162	10-Apr-14	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Dec-14	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-15	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Feb-15	001	737	AOX (Adsorbable Orga	34887	NL	34887	723000	-	*****	1.1	133	1.3	280	
VA0004162	10-Mar-15	001	737	AOX (Adsorbable Orga	9958	NL	44844	723000	-	*****	0.8	133	1.1	280	
VA0004162	10-Apr-15	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Dec-15	001	737	AOX (Adsorbable Orga	-	NL	-	723000	-	*****	-	133	-	280	
VA0004162	10-Jan-10	001	758	FLOW, SEASONAL	-	*****	4077	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	001	758	FLOW, SEASONAL	-	*****	7593	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	001	758	FLOW, SEASONAL	-	*****	9113	14000	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Jan-11	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-11	001	758	FLOW, SEASONAL	-	*****	734	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-11	001	758	FLOW, SEASONAL	-	*****	1504	14000	-	*****	-	*****	-	*****	
VA0004162	10-Apr-11	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Dec-11	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	

29/42

30/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-12	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-12	001	758	FLOW, SEASONAL	-	*****	711	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-12	001	758	FLOW, SEASONAL	-	*****	1306	14000	-	*****	-	*****	-	*****	
VA0004162	10-Apr-12	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Jan-13	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-13	001	758	FLOW, SEASONAL	-	*****	2627	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	001	758	FLOW, SEASONAL	-	*****	4389	14000	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	001	758	FLOW, SEASONAL	-	*****	2924	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	001	758	FLOW, SEASONAL	-	*****	4285	14000	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	001	758	FLOW, SEASONAL	-	*****	3747	14000	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	001	758	FLOW, SEASONAL	-	*****	5149	14000	-	*****	-	*****	-	*****	

VA0004162	10-Apr-15	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-15	001	758	FLOW, SEASONAL	-	*****	-	14000	-	*****	-	*****	-	*****	
VA0004162	10-Jan-10	103	001	FLOW	1.8	NL	2.1	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-10	103	001	FLOW	1.78	NL	2.13	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-10	103	001	FLOW	1.73	NL	2.09	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-10	103	001	FLOW	1.57	NL	1.95	NL	-	*****	-	*****	-	*****	
VA0004162	10-May-10	103	001	FLOW	1.89	NL	2.15	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jun-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jul-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Aug-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Sep-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Oct-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Nov-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-10	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Sep-12	103	001	FLOW	2.71	NL	3.11	NL	-	*****	-	*****	-	*****	
VA0004162	10-Oct-12	103	001	FLOW	2.86	NL	3.06	NL	-	*****	-	*****	-	*****	
VA0004162	10-Nov-12	103	001	FLOW	2.84	NL	3.85	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-12	103	001	FLOW	2.85	NL	3.01	NL	-	*****	-	*****	-	*****	

31/42

32/42

VA0004162	10-Jan-13	103	001	FLOW	2.75	NL	2.89	NL	-	*****	-	*****	-	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Feb-13	103	001	FLOW	2.56	NL	2.86	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-13	103	001	FLOW	2.76	NL	2.94	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-13	103	001	FLOW	2.87	NL	2.91	NL	-	*****	-	*****	-	*****	
VA0004162	10-May-13	103	001	FLOW	2.81	NL	2.92	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jun-13	103	001	FLOW	2.85	NL	2.90	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jul-13	103	001	FLOW	2.83	NL	2.87	NL	-	*****	-	*****	-	*****	
VA0004162	10-Aug-13	103	001	FLOW	2.80	NL	2.87	NL	-	*****	-	*****	-	*****	
VA0004162	10-Sep-13	103	001	FLOW	2.83	NL	2.90	NL	-	*****	-	*****	-	*****	
VA0004162	10-Oct-13	103	001	FLOW	2.58	NL	2.83	NL	-	*****	-	*****	-	*****	
VA0004162	10-Nov-13	103	001	FLOW	2.72	NL	2.90	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-13	103	001	FLOW	2.90	NL	3.13	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-14	103	001	FLOW	2.73	NL	2.90	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-14	103	001	FLOW	2.56	NL	2.86	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-14	103	001	FLOW	2.76	NL	2.94	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-14	103	001	FLOW	2.52	NL	2.59	NL	-	*****	-	*****	-	*****	
VA0004162	10-May-14	103	001	FLOW	2.57	NL	2.81	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jun-14	103	001	FLOW	2.65	NL	2.75	NL	-	*****	-	*****	-	*****	

VA0004162	10-Jul-14	103	001	FLOW	2.75	NL	2.91	NL	-	*****	-	*****	-	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Aug-14	103	001	FLOW	2.85	NL	3.06	NL	-	*****	-	*****	-	*****	
VA0004162	10-Sep-14	103	001	FLOW	2.93	NL	3.22	NL	-	*****	-	*****	-	*****	
VA0004162	10-Oct-14	103	001	FLOW	3.00	NL	3.31	NL	-	*****	-	*****	-	*****	
VA0004162	10-Nov-14	103	001	FLOW	2.85	NL	3.19	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-14	103	001	FLOW	2.76	NL	3.23	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jan-15	103	001	FLOW	2.75	NL	3.09	NL	-	*****	-	*****	-	*****	
VA0004162	10-Feb-15	103	001	FLOW	2.73	NL	3.10	NL	-	*****	-	*****	-	*****	
VA0004162	10-Mar-15	103	001	FLOW	2.73	NL	3.21	NL	-	*****	-	*****	-	*****	
VA0004162	10-Apr-15	103	001	FLOW	2.69	NL	2.99	NL	-	*****	-	*****	-	*****	
VA0004162	10-May-15	103	001	FLOW	2.75	NL	3.15	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jun-15	103	001	FLOW	2.81	NL	3.21	NL	-	*****	-	*****	-	*****	
VA0004162	10-Jul-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Aug-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Sep-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Oct-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Nov-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	
VA0004162	10-Dec-15	103	001	FLOW	-	NL	-	NL	-	*****	-	*****	-	*****	

33/42

VA0004162	10-Jan-10	103	210	PENTACHLOROPHENOIC ACID	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
Permit No	Due Date	outfall	param	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-13	103	210	PENTACHLOROPHENOIC ACID	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	210	PENTACHLOROPHENOIC ACID	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	210	PENTACHLOROPHENOIC ACID	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	223	CHLOROFORM (AS CHLORIDE)	43	3650	43	6100	-	*****	5	NL	5	NL	
VA0004162	10-Jan-13	103	223	CHLOROFORM (AS CHLORIDE)	16.2	3650	16.2	6100	-	*****	5.55	NL	5.55	NL	
VA0004162	10-Jan-14	103	223	CHLOROFORM (AS CHLORIDE)	0	3650	0	6100	-	*****	<QL	NL	<QL	NL	
VA0004162	10-Jan-15	103	223	CHLOROFORM (AS CHLORIDE)	181	3650	181	6100	-	*****	17.1	NL	17.1	NL	
VA0004162	10-Jan-10	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	306	2,3,7,8-TCDD	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	307	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	-	*****	-	*****	-	*****	-	*****	<QL	31.9	
VA0004162	10-Jan-13	103	307	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	-	*****	-	*****	-	*****	-	*****	<QL	31.9	
VA0004162	10-Jan-14	103	307	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	-	*****	-	*****	-	*****	-	*****	<QL	31.9	
VA0004162	10-Jan-15	103	307	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN	-	*****	-	*****	-	*****	-	*****	<QL	31.9	
VA0004162	10-Jan-10	103	601	2,4,5-TRICHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	601	2,4,5-TRICHLOROPHENOL	-	*****	-	*****	-	*****	-	*****	ND	ND	

34/42

VA0004162	10-Jan-14	103	601	2,4,5-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-15	103	601	2,4,5-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	602	2,4,6-TRICHLOROPHE	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	731	4,5,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	732	3,4,6-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	732	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	733	3,4,5-TRICHLOROCATI	-	*****	-	*****	-	*****	-	*****	<QL	ND	

35/42

VA0004162	10-Jan-10	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jan-13	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	734	3,4,5-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	735	2,3,4,6-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	735	2,3,4,6-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	735	2,3,4,6-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	735	2,3,4,6-TETRACHLORO	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	NONDETECT	
VA0004162	10-Jan-13	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	ND	ND	
VA0004162	10-Jan-14	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-15	103	736	3,4,6-TRICHLOROGUA	-	*****	-	*****	-	*****	-	*****	<QL	ND	
VA0004162	10-Jan-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.3	NL	-	*****	
VA0004162	10-Feb-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.5	NL	-	*****	
VA0004162	10-Mar-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	13.5	NL	-	*****	
VA0004162	10-Apr-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	13.1	NL	-	*****	
VA0004162	10-May-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	11.8	NL	-	*****	
VA0004162	10-Jun-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	

36/42

VA0004162	10-Jul-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Aug-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Sep-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Oct-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Nov-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Dec-10	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Sep-12	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	10.5	NL	-	*****	
VA0004162	10-Oct-12	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	7.49	NL	-	*****	
VA0004162	10-Nov-12	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	7.4	NL	-	*****	
VA0004162	10-Dec-12	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	8.6	NL	-	*****	
VA0004162	10-Jan-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.4	NL	-	*****	
VA0004162	10-Feb-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	7.7	NL	-	*****	
VA0004162	10-Mar-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.2	NL	-	*****	
VA0004162	10-Apr-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	7.44	NL	-	*****	
VA0004162	10-May-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	10.7	NL	-	*****	
VA0004162	10-Jun-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	11.0	NL	-	*****	
VA0004162	10-Jul-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.2	NL	-	*****	
VA0004162	10-Aug-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.78	NL	-	*****	

37/42

VA0004162	10-Sep-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	12.37	NL	-	*****	
VA0004162	10-Oct-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	11.5	NL	-	*****	
VA0004162	10-Nov-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	11.2	NL	-	*****	
VA0004162	10-Dec-13	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	10.9	NL	-	*****	
VA0004162	10-Jan-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	10.14	NL	-	*****	
VA0004162	10-Feb-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.87	NL	-	*****	
VA0004162	10-Mar-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Apr-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.7	NL	-	*****	
VA0004162	10-May-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.98	NL	-	*****	
VA0004162	10-Jun-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Jul-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Aug-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.7	NL	-	*****	
VA0004162	10-Sep-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Oct-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Nov-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.8	NL	-	*****	
VA0004162	10-Dec-14	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Jan-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Feb-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Mar-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	10.01	NL	-	*****	

38/42

VA0004162	10-Apr-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-May-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.6	NL	-	*****	
VA0004162	10-Jun-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	9.2	NL	-	*****	
VA0004162	10-Jul-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Aug-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Sep-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Oct-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Nov-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Dec-15	103	747	KAPPA NUMBER MON	-	*****	-	*****	-	*****	-	NL	-	*****	
VA0004162	10-Jan-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	12.7	20	-	*****	
VA0004162	10-Feb-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	12.7	20	-	*****	
VA0004162	10-Mar-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	12.7	20	-	*****	
VA0004162	10-Apr-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	12.5	20	-	*****	
VA0004162	10-May-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	12.4	20	-	*****	
VA0004162	10-Jun-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Jul-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Aug-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Sep-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	

39/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Oct-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Nov-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Dec-10	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Sep-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Oct-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Nov-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Dec-12	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jan-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Feb-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Mar-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Apr-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-May-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jun-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Jul-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Aug-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	NR	20	-	*****	
VA0004162	10-Sep-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.96	20	-	*****	
VA0004162	10-Oct-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.2	20	-	*****	
VA0004162	10-Nov-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.5	20	-	*****	

40/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Dec-13	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.68	20	-	*****	
VA0004162	10-Jan-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.73	20	-	*****	
VA0004162	10-Feb-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.92	20	-	*****	
VA0004162	10-Mar-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	11.0	20	-	*****	
VA0004162	10-Apr-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	11.0	20	-	*****	
VA0004162	10-May-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.97	20	-	*****	
VA0004162	10-Jun-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.8	20	-	*****	
VA0004162	10-Jul-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.6	20	-	*****	
VA0004162	10-Aug-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.3	20	-	*****	
VA0004162	10-Sep-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.1	20	-	*****	
VA0004162	10-Oct-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	10.0	20	-	*****	
VA0004162	10-Nov-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.8	20	-	*****	
VA0004162	10-Dec-14	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.8	20	-	*****	
VA0004162	10-Jan-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.7	20	-	*****	
VA0004162	10-Feb-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.7	20	-	*****	
VA0004162	10-Mar-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.73	20	-	*****	
VA0004162	10-Apr-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.7	20	-	*****	
VA0004162	10-May-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.7	20	-	*****	

4/1/42

Permit No	Due Date	outfall	pram	Parameter Description	qavg	Lim-Avg	qmax	Lim-Max	cmin	Lim-Min	cavg	Lim-Avg	cmax	Lim-Max	
VA0004162	10-Jun-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	9.7	20	-	*****	
VA0004162	10-Jul-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Aug-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Sep-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Oct-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Nov-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	
VA0004162	10-Dec-15	103	749	KAPPA NUMBER ANNI	-	*****	-	*****	-	*****	-	20	-	*****	

42/42

ATTACHMENT 7

SPECIAL CONDITIONS RATIONALE

7-1
VPDES PERMIT PROGRAM
LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Other Requirements or special Conditions

1. Nutrient Enriched Waters Reopener

Rationale: The Policy for Nutrient Enriched Waters, 9 VAC 25-40 -10 allows reopening of permits for discharges into waters designated as nutrient enriched if total phosphorus and total nitrogen in a discharge potentially exceed specified concentrations. The policy also anticipates that future total phosphorus and total nitrogen limits may be needed.

2. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in according to section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan or other wasteload allocation prepared under section 303 of the Act.

3. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

4. Operations & Maintenance (O & M) Manual

Rationale: The State Water Control Law, Section 62.1-44.21 allows requests for any information necessary to determine the effect of the discharge on state waters. Section 401 of the Clean Water Act requires the permittee to provide opportunity for the state to review the proposed operations of the facility. In addition, 40 CFR 122.41 (e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC).

5. Notification Levels

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 and 40 CFR 122.42 (a) require notification of the discharge of certain parameters at or above specific concentrations for existing manufacturing, commercial mining and silvicultural discharges.

6. Quantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4.

7. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters with quantification levels and other limited parameters to ensure consistent, accurate reporting on submitted reports.

8. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.18:2, authorizes the Board to prohibit any waste discharge which would threaten public health or safety, interfere with or be incompatible with treatment works or water use. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

9. Effluent Monitoring Frequencies

Rationale: The incentive for reduced monitoring is an effort to reduce the cost of environmental compliance and to provide incentives to facilities which demonstrate outstanding performance and consistent compliance with their permits. Facilities which cannot comply with specific effluent parameters or have other related violations will not be eligible for this benefit. This is in conformance with Guidance Memorandum No. 98-2005 - Reduced Monitoring and EPA's proposed "Interim Guidance For Performance-Based Reduction of NPDES Permit Monitoring Frequencies" (EPA 833-B-96-001) published in April 1996.

10. Ground Water Monitoring Plan

Rationale: Ground water monitoring will indicate whether the system integrity is being maintained and will determine if activities at the site are resulting in violations of the SWCB's Groundwater Standards.

11. Sampling Methodology for Outfall 001

Rationale: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

12. Use of Trichlorophenol or Pentachlorophenol as Biocides

Rationale: Federal regulations at 40 CFR §430 Subparts B and I require certification by facilities not using certain biocides.

13. Discharge Flow Management for Outfall 001

Rationale: The VPDES Permit Regulation at 9 VAC 25-31-220 K. and federal regulations at 40 CFR §122.44(k) allow BMPs for the control of toxic pollutants listed in Section 307(a)(1) and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law. Actual daily Instream Waste Concentration (IWC) is being limited to a maximum of 65% to ensure that actual IWC is significantly less than the 75% utilized in the Toxics Management Program for toxicity testing purposes.

Rationale and Discussion for Out-Of-Season Discharges:

The permittee submitted a permit modification request in May 2008. The permit modification request came after numerous discussions between the permittee and DEQ concerning allowing IP to discharge some wastewater outside the permitted season of November to March. IP was concerned that in recent years low river flows, low in-stream dissolved oxygen levels and/or high water temperatures have made it difficult for IP to begin their discharge season early enough to allow

the release of the entire contents of "C" pond, which they need to empty prior to March 31 in order to accommodate all of the wastewater generated during the times of year they do not discharge. They have had to request out-of-season discharges in past years. There were no regulatory criteria for requesting, approving, monitoring or documenting such discharges. Through subsequent discussions it was decided to best include these types of discharges in the VPDES permit if IP felt the need to request these in the future. Specific language has been developed to address these discharges. Specific rationale for the language follows.

13.a. This language has not changed from the previous permits except to note that out-of-season discharges will be authorized in Part I.B.13.c.

13.b. This language has changed only in that this section now specifically applies to routine seasonal discharges from November to March.

13.c. This language specifically addresses out-of-season discharges. Out-of-season discharges will be considered for approval in September and October. If the permittee submits acceptable and approvable toxicity test results using early life-stage herring, out-of-season discharges will be considered in all months except April and May. April and May discharges will not be approved due to two main factors. The first is that the wildlife and fisheries staffs from North Carolina, Virginia and the US Fish and Wildlife Service have expressed concern over spring time discharges that could potentially affect shad and herring spawning and migration. Correspondence from these agencies is presented in Attachment 13. Secondly, IP has indicated that the intent of these out-of-season discharges was to coincide with storm events that provide for higher river flows than typical for the season. These types of storm events are more frequent in later summer and fall months rather than the short-duration, localized heavy rainfalls associated with spring thunderstorm events. The benefit from allowing short-duration discharges in these months does not outweigh the need to protect indigenous fish populations in these months, including populations that may linger in the Blackwater River past the typical migration time frame. Discharges in other months will be considered for approval by the DEQ Regional office on a case-by-case basis. All out-of-season discharges must be approved before an out-of-season discharge can take place. Out-of-season discharges based on the results of toxicity testing in June, July and August will be limited to the IWC identified in the toxicity tests as the NOEC.

13.c.1. provides the requirements for requesting out-of-season discharges. This will standardize the request process and provide the DEQ the information considered necessary to approve such a request.

13.c.1.a. addresses the discharge rate and management thereof to protect against toxicity to aquatic organisms and be protective against biological impacts in the receiving stream. This is similar to the existing requirement for permitted discharge season discharges presented in 13.b. of the permit. The IWC will be limited to 45% during each discharge day for out-of-season discharges. This is based on two factors. The first is that the DEQ does not want the receiving stream to be effluent-dominated during times of high water temperatures, low dissolved oxygen levels and potential impacts from storm events. Secondly, IWC data submitted with toxicity test results from 2011 to the present indicate that the permittee has had IWC levels no higher than 25%, with no IWC greater than 25% for in-season discharges. It is not prudent nor protective of the receiving stream to allow higher IWC concentrations during times of out-of-season discharges than the permittee has maintained during typical permitted discharges during times of the least critical river conditions. The permittee has demonstrated passing toxicity test results consistently when IWC's were less than 45%, so toxicity testing will not be required during out-of-season discharges as long as the IWC is less than 45%. Data gathered during the current permit term showed the highest IWC of 25% in 2013.

13.c.1.b. addresses in-stream dissolved oxygen (D.O.) levels and monitoring of instream D.O. levels prior to an out-of-season discharge. This section also addresses review of the D.O. data and management of the discharge rate so that D.O. levels are maintained at ambient in-stream levels, with no impact to in-stream D.O. levels attributable to the out-of-season discharge. The permittee will need to provide D.O. data and proposed discharge management practices to ensure D.O. levels are not impacted by the discharge.

13.c.2. addresses the duration of discharge. The permittee will be allowed to discharge during times of increased river flow and must cease discharging before river flows return to historical averages. This will ensure that the discharge is associated only with increased flows as indicated in the permittee's modification request, and therefore protects the receiving stream from impacts associated with a discharge during critical river conditions.

13.c.3. addresses monitoring requirements during out-of-season discharges. The permittee must monitor at least once per discharge for each out-of-season discharge. If a discharge event lasts longer than 7 calendar days, the permittee must monitor in accordance with Part I.A. of the permit. Effluent limitations listed in Part I.A. will be in effect during out-of-season discharges. This requirement ensures compliance with the permit, the State permit regulation and 40 CFR for discharges from pulp and paper mills. The permittee will be required to submit a discharge monitoring report (DMR) providing the results of effluent sampling. 2,3,7,8-TCDD and 2,3,7,8-TCDF are not subject to discharge-event limitations, these parameters are only subject to seasonal limitations, and are subject to 1/season monitoring, required in the last 14 days of the discharge season. Therefore, monitoring for these parameters will not apply to out-of-season discharges.

13.c.4. addresses documentation and evidence to show that the out-of-season discharge(s) caused no environmental impacts in the receiving stream. This is in accordance with the general Water Quality Standard that prohibits a discharge to alter the receiving stream.

14. In-Stream D.O. Monitoring During the Discharge Season, November-March

Rationale: The Virginia Water Quality Standards at 9 VAC 25-260-50 establish minimum dissolved oxygen criteria that must be maintained. The VPDES regulations at 9 VAC 25-31-210 and -220 authorize the establishment of conditions and limitations necessary to assure compliance with applicable requirements and water quality standards.

This condition applies to discharges during the discharge season of November to March. This is to separate this requirement from the monitoring and discharge management requirements in condition 13.c. that addresses out-of-season discharges. The condition requires the permittee to regulate the discharge so that all D.O. standards downstream of the discharge shall be maintained. The discharge from this facility has little impact upstream of the discharge.

15. Sampling Methodology for Outfall 103

Rationale: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

16. Measurement and Reporting of Kappa Number for Outfall 103

Rationale: Kappa Number is a method-defined analyte regulated under 40 CFR §430 for bleach lines enrolled in the Voluntary Advanced Technology Incentives Program. The methodology for measuring and reporting Kappa Number in conformance with applicable regulations must be defined.

17. Filtrate Recycling and Certification

Rationale: 40 CFR §430.24(b) requires that pulping process filtrates be recycled for bleach lines enrolled in the Voluntary Advanced Technology Incentives Program.

C. Best Management Practices (BMPs) for Spent Pulping Liquor, Soap and Turpentine Management, Spill Prevention, and Control

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44(k) allow BMPs for the control of toxic pollutants listed in Section 307(a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law. In addition federal categorical effluent guidelines at 40 CFR 430.03 prescribe certain best management practices applicable to this facility. The facility has been implementing the conditions required in the BMPs over the previous permit term, and all items are currently completed or are ongoing. Changes in operations, processes and/or controls may necessitate updating the BMPs at the facility in the future.

D. TOXICS MANAGEMENT PROGRAM (TMP)

Rationale: To determine the need for pollutant specific and/or whole effluent toxicity limits as may be required by the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d). See Attachment 9 of this fact sheet for additional justification.

E. STORM WATER MANAGEMENT CONDITIONS

1. Recording of Results

Rationale: This sets forth the information which must be recorded and reported for each storm event sampling (i.e. date and duration event, rainfall measurement, and duration between qualifying events). It also requires the maintenance of daily rainfall logs which are to be reported. This condition is carried over from the previous storm water pollution prevention plan requirements contained in the EPA storm water baseline industrial general permit.

2. Sampling Waiver

Rationale: This condition allows the permittee to collect substitute samples of qualifying storm events in the event of adverse climatic conditions. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

3. Representative Discharge

Rationale: This condition allows the permittee to submit the results of sampling from one outfall as representative of other similar outfalls, provided the permittee can demonstrate that the outfalls are substantially identical. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

4. Quarterly Visual Examination of Storm Water Quality

Rationale: This condition requires that visual examinations of storm water outfalls take place at a specified frequency and sets forth what information needs to be checked and documented. These examinations assist with the evaluation of the pollution prevention plan by providing a simple, low cost means of assessing the quality of storm water discharge with immediate feedback. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

5. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

Rationale: This condition requires that the discharge of hazardous substances or oil from a facility be eliminated or minimized in accordance with the facility's storm water pollution prevention plan. If there is a discharge of a material in excess of a reportable quantity, it establishes the reporting requirements in accordance with state laws and federal regulations. In addition, the pollution prevention plan for the facility must be reviewed and revised as necessary to prevent a reoccurrence of the spill. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

6. Allowable Non-Storm Water Discharges

Rationale: The listed allowable non-storm water discharges are the same as those allowed by the EPA in their multi-sector general permit, and are the same non-storm water discharges allowed under the Virginia General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, 9 VAC 25-151-10 et seq. Allowing the same non-storm water discharges in VPDES individual permits provides consistency with other storm water permits for industrial facilities. The non-storm water discharges must meet the conditions in the permit.

7. Water Quality Protection

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

8. Storm Water Pollution Prevention Plan

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p)(3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

ATTACHMENT 8

MATERIAL STORED

Materials Stored

8-1

VA0004162

Form 2F, Item IV.B Narrative Description of Significant Materials

Form 2F, Item IV.C Description of Structural and Non-Structural Control Measures

Outfall 002 discharges into the Blackwater River at the north end of the Mill site. It drains the north rail yard area, where tank cars containing chemicals used in the fluff pulp process are temporarily stored until needed. Tank car unloading of pulping liquors, primarily black liquor and turpentine, occurs on a spur just south of the main tracks in the areas designated for black liquor loading and unloading. Curbing around the loading and unloading area is present to prevent the possible release of liquors should an accidental spill or release occur. In addition, catch basins at the points of loading/unloading are present to prevent the possible release of liquors or turpentine should an accidental spill or release occur. Discharges from the loading and unloading areas flow to the Mill's effluent treatment system which ultimately discharges to Outfall 001; the primary activity in the Outfall 002 drainage area is rail car storage. Water is continuously discharged from Outfall 002, which appears to be generated by groundwater seeping into the pipe and a drainage ditch that extends from Beaverdam Swamp to the north rail yard.

Outfall 006 discharges into Washole Creek just west of the rail bridge at the south end of the facility. The drainage area is predominantly composed of unpaved surfaces and railroad bed. Tank cars containing chemicals used in the fluff pulp process are temporarily stored on these tracks until needed. A locomotive is parked in this area when not in use that is used to move rail cars from storage up to the north rail yard. When present, the locomotive is parked on sorbent pads to absorb leaks of oil and grease. A shed containing oil drums and spill response materials for the rail yard operator is also located in the drainage area. The outfall pipe at 006 is equipped with a manually operated slide valve that can be closed in the event of a spill. The valve is opened on a monthly basis to ensure proper operation.

Outfall 007 discharges into Washole Creek upstream of Outfall 006. The drainage area is unpaved surfaces and railroad bed. Tank cars containing chemicals used in the fluff pulp process are temporarily stored on these tracks until needed. The outfall pipe at 007 is equipped with a manually operated slide valve that can be closed in the event of a spill. The valve is opened on a monthly basis to ensure proper operation.

Outfalls 008, 009, and 011 discharge into unnamed tributaries to Kingsale Swamp. Each outfall drains areas outside the dike surrounding the landfill as well as the capped portions of the landfill. Water that contacts the landfill waste is segregated by dikes and berms and drains to a leachate collection system from which it is pumped to the industrial effluent system for ultimate discharge via Outfall 001. Stormwater from Outfalls 008, 009, and 011 is directed through sedimentation basins prior to discharge, and discharges from each area are controlled by riser boxes.

Outfall 010 discharges into Washole Creek adjacent to Outfall 006. Discharges are composed entirely of uncontaminated, untreated fresh groundwater from the south well field used in the Mill's industrial processes. The headers at Outfall 010 are periodically opened to perform line flushing of the water supply lines for maintenance purposes. The discharge of any process wastewater or stormwater from this outfall is prohibited.

Outfalls 012, 013, and 014 discharge off Mill property and into conveyance systems that eventually reach Washole Creek. Each of the drainage areas are associated with container storage; the Outfall 012 and 013 drainage areas are each used to store containers of finished fluff pulp waiting to be hauled off-site, while the Outfall 014 drainage area is used to clean and store empty truck containers. Each drainage area is covered with gravel and discharges pass through sedimentation basins before flowing off-site. There is no loading or unloading of product or material in these lots.

Outfall 015 discharges into an unnamed tributary to the Blackwater River in the Mill's north well field. Discharges are composed entirely of uncontaminated, untreated fresh groundwater used in the Mill's industrial processes. The headers at Outfall 015 are periodically opened to perform line flushing of the water supply lines for maintenance purposes. The discharge of any process wastewater or stormwater from this outfall is prohibited.

Pollutants stored in rail cars in the drainage areas of Outfalls 002, 006, and/or 007:

- Sulfuric acid (Section 313 Water Priority Chemical)
- Pulping liquors (black, green, and white)
- Sodium hydrosulfide
- Sodium hydroxide
- Sodium chlorate
- Lime
- Turpentine
- Raw wood chips

Non-Structural Control Measures: All outfalls are subject to monthly visual inspections. In addition, all outfalls are addressed in the Stormwater Pollution Prevention Plan (SWPPP) developed for the Mill. Mill employees receive annual training for the SWPPP and other environmental programs, including Spill Prevention, Control, and Countermeasures (SPCC) and the facility Emergency Response Plan. A Hazardous Emergency Action Team (HEAT), consisting of Mill employees, is capable of responding to spills of varying sizes.

ATTACHMENT 9

TOXICS MONITORING/TOXICS REDUCTION/
WET LIMIT RATIONALE

9-1

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: Whole Effluent Toxicity language for International Paper-Franklin (VA0004162)

TO: D. Thompson

FROM: Deanna Austin *DA*

DATE: September 14, 2015

COPIES:

International Paper-Franklin (IP) is a paper mill located in Franklin, VA. Discharge results from the manufacture of fluff pulp, tissue and recycled papers. Outfall 001 discharges to the Blackwater River. Data collected during the 2010-2015 permit term are shown in the table below. No changes are proposed to the current permit language.

DESCRIPT	SPECIES	Date	LC50	SURVIVAL	NOEC	TU	LAB
1st Set of 2 Acute Tests	C.d.	1/24/11	100	100		1	CBI
1st Set of 2 Acute Tests	C.d.	1/24/11	100	100		1	CBI
1st Set of 2 Chronic Tests	C.d.	2/7/11		100	100	1	CBI
1st Set of 2 Chronic Tests	C.d.	2/7/11		100	100	1	CBI
2nd Set of 2 Acute Tests	C.d.	1/23/12	100	100		1	CBI
2nd Set of 2 Chronic Tests	C.d.	1/23/12		100	100	1	CBI
2nd Set of 2 Acute Tests	C.d.	2/6/12	100	100		1	CBI
2nd Set of 2 Chronic Tests	C.d.	2/6/12		100	100	1	CBI
3rd Set of 2 Acute Tests	C.d.	1/14/13	100	100		1	CBI
3rd Set of 2 Chronic Tests	C.d.	1/14/13		100	100	1	CBI
3rd Set of 2 Chronic Tests	C.d.	1/28/13		100	75	1.33	CBI
3rd Set of 2 Acute Tests	C.d.	1/28/13	100	100		1	CBI
4th Set of 2 Acute Tests	C.d.	1/20/14	100	100		1	CBI
4th Set of 2 Chronic Tests	C.d.	1/20/14		100	100	1	CBI
4th Set of 2 Acute Tests	C.d.	2/3/14	100	100		1	CBI
4th Set of 2 Chronic Tests	C.d.	2/3/14		100	75	1.33	CBI
5th Set of 2 Acute Tests	C.d.	1/12/15	100	100		1	CBI
5th Set of 2 Chronic Tests	C.d.	1/12/15		100	56	1.78	CBI
5th Set of 2 Acute Tests	C.d.	2/9/15	100	100		1	CBI
5th Set of 2 Chronic Tests	C.d.	2/9/15		100	100	1	CBI

The following language is recommended for the International Paper-Franklin permit.

D. TOXICS MANAGEMENT PROGRAM (TMP)

1. Biological Monitoring - Outfall 001

- a. The permittee shall conduct two acute and two chronic toxicity tests each discharge season. The acute test samples shall be collected using a grab sample of final effluent from outfall 001. The chronic test samples shall be collected using at least three grab samples of final effluent from outfall 001 during the chronic test. The second acute test shall be conducted during the second chronic test. The last grab sample for the second chronic test shall be collected within 14 days of the end of the discharge season. The acute tests shall be 48-hour static tests using Ceriodaphnia dubia, conducted in such a manner and at sufficient dilutions for calculation of a valid LC₅₀. The chronic tests shall be static renewal tests using Ceriodaphnia dubia. The C. dubia test shall be a 3-brood survival and reproduction test. These chronic tests shall be conducted in such a manner and at sufficient dilutions to determine the NOEC for survival and reproduction. **The results of all analyses shall be reported. Test results for each test shall be submitted by the 10th of the month after the month the test results were received.**

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

- b. The permittee may provide additional samples to address data variability. These data shall be reported and may be included in the evaluation of the effluent toxicity. Test procedures and reporting shall be in accordance with 1.a above.
- c. The following criteria shall be used in evaluating the toxicity test data generated in 1.a above:
 - (1) Acute LC₅₀ greater than or equal to 100% effluent;
 - (2) Chronic NOEC greater than or equal to the IWC of 75%
- d. If, in the testing according to I.D.1, any toxicity tests are invalidated, the tests shall be repeated within the testing period that the original test was taken, or if already past that period, within fourteen (14) days of notification. If there is no discharge during this period, a sample must be taken during the first allowable discharge.
- e. All applicable data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of D.1.a. may be discontinued.

2. Reporting Schedule

Each toxicity test report submitted in accordance with this Toxics Management Program shall identify the specific period represented. The permittee shall report the results and supply **one** complete copy of the toxicity test reports to the Tidewater Regional Office in accordance with the schedule below. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody.

(a)	Conduct first set of two acute and two chronic biological tests	By March 31, 2016
(b)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2016
(c)	Conduct second set of two acute and two chronic biological tests	By March 31, 2017
(d)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2017
(e)	Conduct third set of two acute and two chronic biological tests	By March 31, 2018
(f)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2018
(g)	Conduct fourth set of two acute and two chronic biological tests	By March 31, 2019
(h)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2019
(i)	Conduct fifth set of two acute and two chronic biological tests	By March 31, 2020
(j)	Submit results of all biological tests	By the 10 th of the month following the month in which test results were received but no later than May 10, 2020

ATTACHMENT 10

RECEIVING WATERS INFO/
TIER DETERMINATION/STORET DATA/
STREAM MODELING/303(d) LISTED SEGMENTS

10-1 Planning Permit Review

Date: 6/30/2015

To: Kristie Britt, TRO

Permit Writer: Debbie Thompson

Facility: International Paper-Franklin Mill.

Permit Number: VA0004162

Issuance, Reissuance or Modification (if Modification describe): Reissue

Permit Expiration Date: 11/15/2015

Waterbody ID (ex: VAT-G15E): VAT-K36R

Topo Name: Riverdale 05C

Facility Address:

34040 Union Camp Drive, Franklin, VA 23851 – note – facility address is approx. 7 miles from the actual discharge location. Lat Long of discharge location is 36 34 08 76 53 09.

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name:	
Stream Data Requested?	
Outfall #: 001	Lat Lon: 36 34 08 76 53 09
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:
Stream Name (2):	
Stream Data Requested?	
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:
Outfall #:	Lat Lon:

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Planning Review:

303 (d): Indicate Outfalls which discharge directly to an impaired (Category 5) stream segment and parameters impaired	
All Outfalls discharge to impaired 303d listed streams. Outfall 001 discharges to the impaired lower Blackwater stream segment, VAT-K36R_BLW05A08. This segment is impaired for Aquatic Life Use – benthics and naturally low DO and for Fish Consumption Use - mercury. Outfall 002 discharges to the middle Blackwater impaired segment, VAT-K36R_BLW03A08. This segment is impaired for Aquatic Life Use – naturally occurring low DO and Fish Consumption Use –mercury. Outfalls 6,7,10 and 12-14 discharge to impaired segment VAT-K36R_BLW04A08. This segment is impaired for Aquatic Life Use – naturally occurring low DO, Recreation Use – Ecoli and Fish Consumption Use –mercury. Outfalls 8, 9 and 11 discharge to impaired Unnamed tribs to Blackwater (VAT-K36R_ZZZ01A00) and 015 to impaired Blackwater segment, VAT-K36R_BLW02C10. These segments are impaired for Fish Consumption Use –mercury. See Attachment 1 for listed impairments.	
Tier Determination	
Tier	Outfall 001 is maintained as a Tier 1 water based on discharges to impaired stream. See Attachment 1.
Tier	Outfalls 008, 009, and 011 discharge to intermittent streams and therefore are a Tier 1. All other outfalls a tier cannot be determined since the receiving streams are Category 4C with Aquatic Life Use impairments due to naturally low dissolved oxygen.
Management Plan	
Is the facility Referenced in a Management Plan?	No
Are limits contained in a Management Plan?	No

Review will be completed in 30 days of receipt of request.



2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum Daily Load Study

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
K30R-01-DO Aquatic Life	Darden Mill Run Oxygen, Dissolved	5C			10.37	2002	2014
K30R-01-PH Aquatic Life	Darden Mill Run pH	5C			10.37	2004	2016
K30R-02-BAC Recreation	Nottoway River - Upper Escherichia coli	5A			0.47	2008	2020
K30R-03-BEN Aquatic Life	Nottoway River - Lower Benthic-Macroinvertebrate Bioassessments	5A			15.36	2012	2022
K31R-04-BEN Aquatic Life	Warwick Swamp Benthic-Macroinvertebrate Bioassessments	5A			2.93	2010	2022
K32R-01-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			1.03	2008	2020
K32R-13-HG Fish Consumption	Blackwater River Basin Mercury in Fish Tissue	5A			33.64	2004	2016
	Mercury in Fish Tissue	5A			25.38	2006	2018
	Mercury in Fish Tissue	5A			528.51	2008	2018
	Mercury in Fish Tissue	5A			282.27	2008	2020
	Mercury in Fish Tissue	5A			214.74	2010	2022
	Mercury in Fish Tissue	5A			1.58	2010	2020
	Mercury in Fish Tissue	5A			3.89	2012	2016
K32R-18-BEN Aquatic Life	Blackwater River, UT Benthic-Macroinvertebrate Bioassessments	5A			3.13	2008	2020
K33R-02-BAC Recreation	Blackwater River - Upper Escherichia coli	5A			18.94	2008	2020
	Escherichia coli	5A			0.91	2012	2022
K33R-02-BEN Aquatic Life	Blackwater River - Upper Benthic-Macroinvertebrate Bioassessments	5A			18.94	2008	2020
K33R-03-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			4.14	2008	2020
	Benthic-Macroinvertebrate Bioassessments	5A			5.03	2012	2020
K34R-01-PH Aquatic Life	Mill Swamp pH	5C			8.36	2010	2022
K35L-01-DO Aquatic Life	Airfield Pond Oxygen, Dissolved	5C		120.07		2008	2020
K35L-01-HG Fish Consumption	Airfield Pond Mercury in Fish Tissue	5A		120.07		2010	2022
K35R-02-BAC Recreation	Seacock Swamp - Lower Fecal Coliform	5A			2.63	2004	2016



2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum Daily Load Study

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Date
K35R-02-BEN Aquatic Life	Seacock Swamp - Lower Benthic-Macroinvertebrate Bioassessments	5A			2.63	2008	2020
K35R-03-BAC Recreation	UT Seacock Swamp Fecal Coliform	5A			1.03	2004	2016
K35R-03-DO Aquatic Life	UT Seacock Swamp Oxygen, Dissolved	5C			1.03	2004	2016
K35R-04-BAC Recreation	UT Airfield Pond - Lower Escherichia coli	5A			0.71	2004	2016
K35R-04-DO Aquatic Life	UT Airfield Pond - Lower Oxygen, Dissolved	5C			0.71	2004	2016
K35R-05-BAC Recreation	UT Airfield Pond - Upper Escherichia coli	5A			0.68	2004	2016
K35R-05-DO Aquatic Life	UT Airfield Pond - Upper Oxygen, Dissolved	5C			0.68	2004	2016
K35R-06-BAC Recreation	Seacock Swamp - Upper Fecal Coliform Escherichia coli	5A 5A			0.80 2.45	2006 2012	2018 2022
K35R-07-DO Aquatic Life	Brantley Swamp - Lower Oxygen, Dissolved	5C			3.52	2004	2016
K35R-08-BEN Aquatic Life	Round Hill Swamp Benthic-Macroinvertebrate Bioassessments	5A			0.62	2008	2020
K36R-02-BAC Recreation	Blackwater River - Lower Middle Escherichia coli	5A			6.77	2006	2018
K36R-02-BEN Aquatic Life	Black Creek Benthic-Macroinvertebrate Bioassessments	5A			4.16	2008	2020
K36R-03-BAC Recreation	Black Creek - Upper Escherichia coli	5A			1.23	2010	2022
K36R-04-BAC Recreation	Cypress Swamp Escherichia coli	5A			4.90	2012	2024
K36R-04-BEN Aquatic Life	Unsegmented Tributary to Blackwater Benthic-Macroinvertebrate Bioassessments	5A			2.69	2008	2020
K36R-05-BEN Aquatic Life	Blackwater River - Upper Benthic-Macroinvertebrate Bioassessments	5A			2.41	2012	2024
K36R-06-BEN Aquatic Life	Blackwater River - Lower Benthic-Macroinvertebrate Bioassessments	5A			4.36	2012	2024
K38R-01-BEN Aquatic Life	Somerton Creek Benthic-Macroinvertebrate Bioassessments	5A			9.09	2006	2018

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: K32R-13-HG

Blackwater River Basin

Location: Blackwater River and tributaries from its headwaters to the VA-State Line

City / County: Dinwiddie Co Isle Of Wight Co Petersburg City Prince George Co South Boston City
 Southampton Co Suffolk City Surry Co Sussex Co

Use(s): Fish Consumption

Cause(s) /

VA Category: Mercury in Fish Tissue / 5A

During the 2006 cycle, the Blackwater River from Route 31 near Dendron downstream to the Virginia-North Carolina state line was assessed as impaired of the Fish Consumption Use due to a VDH fish consumption advisory for mercury.

During the 2008 cycle, the advisory was expanded on 8/31/2007 to include the Blackwater River to its headwaters, including all of its tributaries. The advisory currently recommends consuming no more than two meals/month of largemouth bass, sunfish species, bowfin, chain pickerel, white catfish, redhorse sucker and longnose gar.

The advisory is based on the results of DEQ's fish tissue monitoring program, which show mercury exceedances at multiple stations throughout the watershed, including 5ABKR003.68, 5ABKR002.33, 5AWKS013.53, 5ASEC005.39, 5ABLW074.66, 5ACPP004.04, 5ACPP007.86, 5AJCH000.73.

Blackwater River Basin	Estuary	Reservoir	River
Fish Consumption	(Sq. Miles)	(Acres)	(Miles)
Mercury in Fish Tissue - Total Impaired Size by Water Type:			II II II II II II

Sources:

Atmospheric Deposition - Source Unknown
 Toxics

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-02-BAC

Blackwater River - Lower Middle

Location: This cause encompasses the lower Blackwater River from RM 13.76 (downstream of Franklin, confluence of UT, parallel to Hayden High School) downstream west of Union Camp Holding Pond.

City / County: Isle Of Wight Co

Southampton Co

Use(s): Recreation

Cause(s) /

VA Category: Escherichia coli / 5A

The Recreation Use is impaired based on E.coli data (5/38, 4/30, 6/36, 5/31, 9/37) at DEQ (AQM) stations @ 5ABLW009.14, 5ABLW011.48, 5ABLW012.28, 5ABLW012.96, 5ABLW013.16.

Blackwater River - Lower Middle
Recreation

Estuary
(Sq. Miles)

Reservoir
(Acres)

River
(Miles)

Escherichia coli - Total Impaired Size by Water Type:

6.77

Sources:

Source Unknown

Appendix 5 - List of Impaired (Category 5) Waters in 2012

Chowan River and Dismal Swamp Basins

Cause Group Code: K36R-06-BEN

Blackwater River - Lower

Location: This cause encompasses the area From Cox Landing downstream to RM 0.65 (at Suffolk City & Gates County line).

City / County: Isle Of Wight Co

Southampton Co

Use(s): Aquatic Life

Cause(s) /

VA Category: Benthic-Macroinvertebrate Bioassessments / 5A

The Aquatic Life Use is impaired based on Benthic IM [MI:F-'05,06,08 S-08] at Station 5ABLW001.10.

Blackwater River - Lower

Estuary

Reservoir

River

Aquatic Life

(Sq. Miles)

(Acres)

(Miles)

Benthic-Macroinvertebrate Bioassessments - Total Impaired Size by Water Type:

4.36

Sources:

Source Unknown



10-7

2012 List of Naturally Impaired Waters (Category 4C)* No TMDL Needed

Chowan River and Dismal Swamp Basins

Cause Group Code Impaired Use	Water Name	Cause Cause	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)
K32R-11-DO Aquatic Life	XDR - UT to Otterdam Swamp Oxygen, Dissolved	4C			2.61
K32R-15-DO Aquatic Life	Spring Branch, UT (XAW) Oxygen, Dissolved	4C			1.07
K32R-16-DO Aquatic Life	Spring Branch, UT (XAL) Oxygen, Dissolved	4C			0.72
K33R-02-DO Aquatic Life	Blackwater River - Upper, Middle, Lower Oxygen, Dissolved	4C			23.99
K34R-01-DO Aquatic Life	Mill Swamp Oxygen, Dissolved	4C			8.36
K34R-02-DO Aquatic Life	Rattlesnake Swamp Oxygen, Dissolved	4C			6.09
K35R-01-DO Aquatic Life	Seacock Swamp - Upper Oxygen, Dissolved	4C			0.80
K36R-01-DO Aquatic Life	Blackwater - Lower Middle Oxygen, Dissolved	4C			10.21
K36R-02-DO Aquatic Life	Blackwater River - Lower Middle Oxygen, Dissolved	4C			8.19
K36R-03-DO Aquatic Life	Washole Creek Oxygen, Dissolved	4C			0.64
K37R-01-DO Aquatic Life	Buckhorn Creek Oxygen, Dissolved	4C			1.55
K37R-01-PH Aquatic Life	Buckhorn Creek pH	4C			1.55
K38R-01-DO Aquatic Life	Somerton Creek Oxygen, Dissolved	4C			9.09
K39R-01-DO Aquatic Life	Dismal Swamp Canal & Feeder Ditch to Lake Drummond Oxygen, Dissolved	4C			17.58
K41R-02-DO Aquatic Life	Milldam Creek - Lower Oxygen, Dissolved	4C			2.50
K41R-05-DO Aquatic Life	West Neck Creek - Middle Oxygen, Dissolved	4C			3.59
K42E-01-DO Aquatic Life	Nawney Creek - Upper Oxygen, Dissolved	4C	0.022		

VIRGINIA
Draft 305(b)/303(d)
WATER QUALITY INTEGRATED REPORT
to
CONGRESS and the EPA ADMINISTRATOR
for the
PERIOD
January 1, 2005 to December 31, 2010



Richmond, Virginia
March 2012

10-7 TMDL Permit Review

Date: 07/07/2015

To: Jennifer Howell, TRO

✓ JSH 7/24/2015

Permit Writer: Debbie Thompson

Facility: International Paper – Franklin Mill

Permit Number: VA0004162

Issuance, Reissuance or Modification (if Modification describe) : Reissue

Permit Expiration Date: 11/15/2015

Waterbody ID (ex: VAT-G15E): VAT-K36R

Topo Name: Riverdale 05C

Facility Address:

34040 Union Camp Drive, Franklin, VA 23851 – note – facility address is approx. 7 miles from the actual discharge location. Lat Long of discharge location is 36 34 08 76 53 09.

Receiving Stream: Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

Stream Name: Blackwater River	
Click here to enter text.	
Outfall #: 001	Lat Lon: 36 34 08 76 53 09
Outfall #: Click here to enter text.	Lat Lon: Click here to enter text.
Outfall #: Click here to enter text.	Lat Lon: Click here to enter text.
Stream Name (2): Click here to enter text.	
Click here to enter text.	
Outfall #: Click here to enter text.	Lat Lon: Click here to enter text.
Outfall #: Click here to enter text.	Lat Lon: Click here to enter text.
Outfall #: Click here to enter text.	Lat Lon: Click here to enter text.

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Is there a design flow change? If yes give the change. Click here to enter text.

TMDL Review:

Is a TMDL IN PROGRESS for the receiving stream? No	
Has a TMDL been APPROVED that includes the receiving stream?	
A Natural Conditions report has been written and approved by EPA for low DO conditions in the Blackwater River watershed. See "Additional Comments" below.	
If yes, Include TMDL Name, Pollutant(s) and date of approval:	
NA	
Is the facility assigned a WLA from the TMDL?	NA
If Yes, what is the WLA?	
NA	

Review will be completed in 30 days of receipt of request.

Additional Comments:

A Natural Conditions assessment was completed to confirm the DO impairments are due to natural conditions and therefore the development of a TMDL is not required. (Blackwater Dissolved Oxygen Assessment for Blackwater Swamp Waters: Approved 4/8/2010 *See TMDL Attachment_1) The current Assessment Category is "4C – Not needing a TMDL". During the next Triennial Review, this section of the Blackwater River is proposed to be changed	Cli
--	-----

10-70
TMDL Permit Review

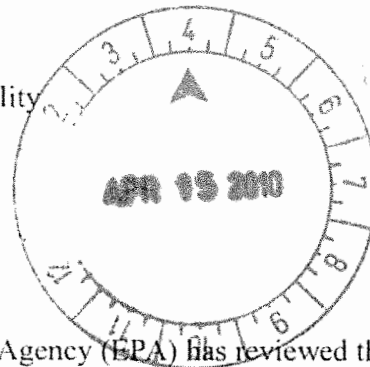
from a Class II to a Class VII swamp water. Part of the Natural Conditions process is to determine anthropogenic impacts, if any, to the impairments. IP VA0004162 was identified as a point source discharging into the Blackwater River. Even so, data from the facility showed that it was very well controlled and not impacting the DO levels in the River. However, this process was completed prior to the facility modifying its permit and subsequently having it reissued in 2015. Because of the modification to the facility and permit, every effort should be made to maintain the reduced anthropogenic input and continue to be very well controlled so they do not impact the dissolved oxygen levels. It is recommended that the facility perform DO sampling at the representative outfalls.



10-11 TMDL LTR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Ellen Gilinsky, Ph.D., Director
Division of Water Quality Programs
Virginia Department of Environmental Quality
629 E. Main Street
P.O. Box 1105
Richmond, Virginia 23218



Dear Dr. Gilinsky:

The U.S. Environmental Protection Agency (EPA) has reviewed the Virginia Department of Environmental Quality's (VADEQ) *Dissolved Oxygen (DO) Assessment for Blackwater Swamp Waters*, which addresses six Consent Decree segments currently listed as impaired for dissolved oxygen on Virginia's 2008 Section 305(b)/303(d) Integrated Report.¹ VADEQ performed this assessment to confirm that all six segments (Blackwater River (Upper), Blackwater River (Middle, Lower-Middle, Lower, Mouth), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp and Tarrara Creek) are impaired due to natural conditions and do not require the development of a Total Maximum Daily Load (TMDL). VADEQ is therefore requesting that these segments be placed in Category 4C of Virginia's 2010 Section 305(b)/303(d) Integrated Report.

As indicated in your assessment, Blackwater River (Upper), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp, and Tarrara Creek are currently classified as Class VII Swamp Waters in Virginia's Water Quality Standards. The Class VII designation applies to naturally occurring swamp waters with dissolved oxygen values that may exceed the criteria required for Class I through VI waters. There are no numeric dissolved oxygen criteria for Class VII waters because dissolved oxygen exceedances are a result of natural conditions and are not due to anthropogenic activities. Dissolved oxygen TMDLs are, therefore, not required for Class VII waters. Based upon this information, EPA approves your request to place Blackwater River (Upper), Mill Swamp, Rattlesnake Swamp, Upper Seacock Swamp, and Tarrara Creek in Category 4C of Virginia's 2010 Section 305(b)/303(d) Integrated Report.

Blackwater River (Middle, Lower-Middle, Lower, Mouth) is the only segment in the assessment that is currently classified as a Class II Estuarine Water in Virginia's Water Quality Standards. The dissolved oxygen criteria for Class II waters require a minimum concentration of 4.0 mg/l and a daily average concentration of 5.0 mg/l. VADEQ's, *Procedure for Natural Condition Assessment of low pH and low DO in Virginia Streams: October 2004*, was used to determine whether the dissolved oxygen impairments in the Blackwater River (Middle, Lower-Middle, Lower, Mouth) are being caused by naturally occurring conditions or by anthropogenic

¹ A complete listing history of the impaired segments addressed in this assessment is enclosed.

activities. To make this determination, Virginia's analysis of the dissolved oxygen impairment was conducted using the following procedure:

Step 1. Determine if wetlands are present through appearance and slope/flow measures.

Appearance and slope/flow must be identified for each stream segment to be assessed for potential re-classification. Streams that have naturally low dissolved oxygen levels are characterized by decaying vegetation, low slopes and low velocity flows.

Findings: The assessment of Blackwater River (Middle, Lower-Middle, Lower, Mouth) revealed swampy water conditions characterized by very low slopes (<0.01%) and low velocity flows. Water in the segment also had a distinctive color (>50 PT Color, resembling dark tea) that is indicative of swamp conditions. This coloration is common in swamps and wetlands and is caused by the decomposition of plant material that produces fulvic and humic acids.

Step 2. Determine nutrient levels and compare with U.S. Geological Survey (USGS) background concentrations.

High nutrient levels are an indication of anthropogenic inputs of nitrogen, phosphorus, and possibly organic matter. Streams with average concentrations of nutrients greater than the national background concentrations (USGS 1999) should be evaluated for potential impacts from anthropogenic sources.

Findings: Mean nutrient concentrations for two of the three nutrients that were monitored - total nitrogen (TN) and total phosphorus (TP) - were slightly above the USGS national average background concentrations. Average TN concentrations exceeded the USGS screening values at four of 16 monitoring stations, while average TP exceeded the screening values at one of 16 stations. That said, further evaluation determined that elevated nutrient levels are not having an impact on dissolved oxygen levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth), as explained in Step 4.

Step 3. Determine degree of seasonal fluctuation of dissolved oxygen levels.

A weak seasonal pattern could indicate that human inputs from point or nonpoint sources are impacting the seasonal cycle of dissolved oxygen. A seasonal analysis must be conducted to verify a consistent seasonal pattern for dissolved oxygen levels.

Findings: Dissolved oxygen was assessed for seasonal fluctuations using a Moods median test. The results indicated that dissolved oxygen shows consistent seasonality.

Step 4. Determine anthropogenic impacts such as permitted dischargers.

Every effort should be made to identify human impacts that could exacerbate low dissolved oxygen levels. Point sources should be identified and Discharge Monitoring Report data analyzed to determine if there is any impact made to the streams dissolved oxygen concentrations.

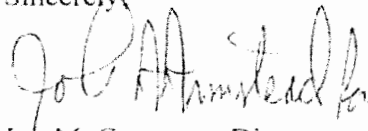
Findings: There are two point sources discharging nutrients into the Blackwater River (Middle, Lower-Middle, Lower, Mouth), including the City of Franklin Wastewater Treatment Plant - VA0023922, and International Paper - VA0004162. Data from these facilities show that they are very well controlled and are not impacting dissolved oxygen

levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth). Dissolved oxygen concentrations measured at 16 monitoring stations throughout the segment remain consistent; showing no change at or below the permitted discharge points, where the impact from anthropogenic sources would most likely be found. DEQ also noted that the International Paper Mill is scheduled to shut down in April 2010, which will result in substantial reductions in nutrient loading to the river. In addition, excess organic matter was shown not to be excessive due to the fact that five-day biochemical oxygen demand concentrations were well below the maximum concentration criteria of 4.0mg/L at all monitoring stations. Based upon these results, there is no indication that anthropogenic activities are exacerbating the naturally low dissolved oxygen levels in the Blackwater River (Middle, Lower-Middle, Lower, Mouth).

Upon review of VADEQ's *Dissolved Oxygen (DO) Assessment for Blackwater Swamp Waters*, EPA approves VADEQ's request to place the dissolved oxygen impairments in all six Consent Decree segments under Category 4C of Virginia's 2010 Section 305(b)/303(d) Integrated Report. VADEQ has demonstrated that the dissolved oxygen impairments are occurring naturally, and do not warrant the development of a TMDL. In addition, it is EPA's understanding that VADEQ will request that Blackwater River (Middle, Lower-Middle, Lower, Mouth) be formally reclassified as a Class VII Swamp Water during the next triennial review of Virginia's Water Quality Standards.

If you have any questions or comments please call me, or have your staff contact Greg Voigt, at 215-814-5737.

Sincerely,



Jon M. Capacasa, Director
Water Protection Division

Enclosure

cc: David Lazarus, VADEQ

Water ory 4C	Dissolved Oxygen	VAT-K36R*	VAT-K36R	VAT-K36R-01	00639	K32R-13-DO	VAT-K36R_B LW02A08 VAT-K36R_B LW03A08 VAT-K36R_B LW06A08 VAT-K36R_B LW04A08 VAT-K36R_B LW05A08 VAT-K36R_WAC01A08
Water ory 4C	Dissolved Oxygen	VAT-K34R*	VAT-K34R	VAT-K34R-01	00636	K34R-01-DO	VAT-K34R_MSW01A00
Water ory 4C	Dissolved Oxygen	VAT-K34R*	VAT-K34R	VAT-K34R-02	00637	K34R-02-DO	VAT-K34R_RKN01A02
Water ory 4C	Dissolved Oxygen	VAT-K35R*	VAT-K35R	VAT-K35R-01	00638	K35R-01-DO	VAT-K35R_SCK01A00
Water ory 4C	Dissolved Oxygen	VAT-K13R*	VAT-K13R	VAT-K13R-01	00634	K13R-01-DO	VAT-K13R_TRR01A00

10-14

ATTACHMENT 11

TABLE III (a) AND TABLE III (b) -
CHANGE SHEETS

TABLE III(a)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001	TSS	No change	261 avg, 522 max to the following: Phase I 292 avg 584 max Phase II 307 avg 614 max Phase III 305 avg 610 max Phase IV 310 avg 620 max	New process caused recalculation of Fed Eff Guideline limits, calculated in four phases to correspond to the phases of new process implementation	DLT 6/15
001	BOD	No change	127 avg, 254 max to the following: Phase I 143 avg 286 max Phase II 155 avg 310 max Phase III 149 avg 298 max Phase IV 152 avg 304 max	New process caused recalculation of Fed Eff Guideline limits, calculated in four phases to correspond to the phases of new process implementation	DLT 6/15
001	Dioxin (2,3,7,8-TCDD)	No change	1.1×10^{-5} lb/season to 0.19×10^{-5} lb/season	Revised Dioxin criteria for VA and NC resulted in recalculation of limits	DLT 6/15
001	AOX	No change	Current production 920 ADTPD Annual Avg Concentration 133 mg/l to 21 mg/l Daily Max Concentration 280 mg/l to 47 mg/l Mass Seasonal Max Limit of 723,000 lb/yr to 175,000 lb/yr	F Bleach Line is only line currently active. Recalculation due to line closure of other 2 bleach lines. Eff Guidelines are unchanged	DLT 6/15

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
103	Chloroform	No change	Monthly Avg 3650 g/day to 3463 g/day Daily Max 6100 g/day to 5788 g/day	Recalculation based on F Bleach Line production changes (From 970 T/day to 920 T/day)	DLT 6/15
001	Ammonia- Nitrogen	1/w to 1/Month	No change	Ammonia limit recalculation resulted in a higher limit; due to anti- backsliding regs, current limit remains; data consistently ND, therefore reduction in monitoring frequency warranted; BPJ.	DLT 9/15

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL
New Discharge Characterization for Outfall 001	DELETE: OF 001 was characterized in application	DLT 7/15
Form 2F Sampling	DELETE: OF 009 was characterized on 2F application	DLT 7/15
ADD Review by FWS and DCR for Threatened & Endangered Species	Review did not generate comments requiring changes to the permit	DLT 8/15
SW Quarterly Visuals	ADD: in accordance with updated SW conditions	DLT 9/15
BMP's for Pulp and Paper Industry	Updated/revised for reissuance	DLT 7/15
TMP	Updated/revised as needed based on data	DLT 7/15
SW Management Condition	Updated/revised as appropriate for Mill operations	DLT 7/15

3/15/00

TABLE III(b)

VPDES PERMIT PROGRAM
Permit Processing Change Sheet

1. Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).

OUTFALL NUMBER	PARAMETER CHANGED	MONITORING LIMITS CHANGED FROM / TO	EFFLUENT LIMITS CHANGED FROM / TO	RATIONALE	DATE & INITIAL
001					

OTHER CHANGES FROM:	CHANGED TO:	DATE & INITIAL

ATTACHMENT 12

NPDES INDUSTRIAL PERMIT RATING WORKSHEET

12-1

Facility Name:

Reach Number:

 YES: score is 600 (stop here) X NO (continue)

12-2
NPDES Permit Rating Work Sheet

NPDES No.: V A 0 0 4 1 6 2

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) ☒ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)		Code	Points
<input type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	>1000 to 3000 lbs/day	3	15
<input checked="" type="checkbox"/>	>3000 lbs/day	4	20

Code Checked: 4

Points Scored: 2 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)		Code	Points
<input type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	>1000 to 5000 lbs/day	3	15
<input checked="" type="checkbox"/>	>5000 lbs/day	4	20

Code Checked: 4

Points Scored: 2 0

C. Nitrogen Pollutant: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)		Code	Points
<input type="checkbox"/>	< 300 lbs/day	1	0
<input type="checkbox"/>	300 to 1000 lbs/day	2	5
<input type="checkbox"/>	>1000 to 3000 lbs/day	3	15
<input checked="" type="checkbox"/>	>3000 lbs/day	4	20

Code Checked: 4

Points Scored: 2 0

Total Points Factor 3: 6 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

☐ YES (if yes, check toxicity potential number below)

☒ NO (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column -- check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked:

Total Points Factor 4:

12-3
NPDES Permit Rating Work Sheet

NPDES No.: V A 0 0 0 4 1 6 2

FACTOR 5: Water Quality Factors

- A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?

	Code	Points
<u> X </u> Yes	1	10
<u> </u> No	2	0

- B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

	Code	Points
<u> X </u> Yes	1	0
<u> </u> No	2	5

- C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

	Code	Points
<u> </u> Yes	1	10
<u> X </u> No	2	0

Code Number Checked: A 1 B 1 C 2
 Points Factor 5: A 1 0 + B 0 + C 0 0 = 1 0 TOTAL

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from Factor 2): 5 3 Enter the multiplication factor that corresponds to the flow code: . 6

Check appropriate facility HPRI Code (from PCS):

HPRI #	Code	HPRI Score	Flow Code	Multiplication Factor
<u> </u> 1	1	20	11, 31, or 41	0.00
			12, 32, or 42	0.05
<u> </u> 2	2	0	13, 33, or 43	0.10
			14 or 34	0.15
<u> X </u> 3	3	30	21 or 51	0.10
			22 or 52	0.30
<u> </u> 4	4	0	23 or 53	0.60
			24	1.00
<u> </u> 5	5	20		

HPRI code checked: 3

Base Score: (HPRI Score) 30 x (Multiplication Factor) 0.6 = 5 (TOTAL POINTS)

- B. Additional Points--NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
<u> X </u> Yes	1	10
<u> </u> No	2	0

- C. Additional Points--Great Lakes Area of Concern

for a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)

	Code	Points
<u> </u> Yes	1	10
<u> X </u> No	2	0

Code Number Checked: A 3 B 1 C 2
 Points Factor 6: A 0 5 + B 1 0 + C 0 0 = 15 TOTAL

12-4
NPDES Permit Rating Work Sheet

NPDES NO: |_V_|_A_|_0_|_0_|_0_|_4_|_1_|_6_|_2_|

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	25
2	Flow/Stream flow Volume	30
3	Conventional Pollutants	60
4	Public Health Impacts	-
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	15
TOTAL (Factors 1-6)		140

S1. Is the total score equal to or greater than 80? ☒ Yes (Facility is a major) ☐ No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

☐ No
☐ Yes (add 500 points to the above score and provide reason below:

Reason:

NEW SCORE: 140

OLD SCORE: 140

Debra L. Thompson

Permit Reviewer's Name

(757) 518-2162
 Phone Number

June 30, 2015
 Date

ATTACHMENT 13


Public Participation/
Pertinent Correspondence

13-1


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TAK INVESTMENTS, INC.

General

SCC ID: F1886938
Entity Type: Foreign Corporation
Jurisdiction of Formation: DE
Date of Formation/Registration: 2/13/2012
Status: Active
Shares Authorized: 1000

Principal Office

401 PROFESSIONAL DRIVE
STE. 110
GAITHERSBURG MD20879

Registered Agent/Registered Office

CORPORATION SERVICE COMPANY
1111 E MAIN ST 16TH FL
RICHMOND VA 23219
RICHMOND CITY 216
Status: Active
Effective Date: 2/13/2012

Select an action

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[File a registered office address change](#)
[Resign as registered agent](#)
[File an annual report](#)
[Pay annual registration fee](#)
[Order a certificate of good standing](#)
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


SCC eFile
SCC eFile Home Page
Check Name
Distinguishability
Business Entity Search
Certificate Verification
FAQs
Contact Us
Give Us Feedback

Business Entities

UCC or Tax Liens

Court Services

Additional Services

Screen ID: e1000
Need additional information? Contact sccefo@scv.virginia.gov Website questions? Contact: webmaster@scv.virginia.gov
We provide external links throughout our site.
 PDF(.pdf) Reader  Excel (.xls) Viewer  PowerPoint (.ppt) Viewer  Word (.doc) Viewer
Build #: 1.0.0.24456



13-2

COMMONWEALTH of VIRGINIA

Marissa J. Levine, MD, MPH, FAAFP
State Health Commissioner

DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
Southeast Virginia Field Office

John J. Aulbach II, PE
Director, Office of Drinking Water

830 Southampton Avenue
Suite 2058
Norfolk, VA 23510
Phone (757) 683-2000
Fax (757) 683-2007

DATE: June 17, 2015

FROM: *DBH* Daniel B. Horne, PE, Engineering Field Director

TO: Debra L. Thompson, Environmental Specialist Senior
DEQ Tidewater Regional Office
5636 Southern Boulevard
Virginia Beach, Virginia 234562

CITY/COUNTY: Isle of Wight County

APPLICANT: Mr. Charles L. Hairston, Mill Manager, International Paper – Franklin Mill

PERMIT TYPE: VPDES

APPLICATION TYPE: Re-Issuance (Existing)

PROJECT: International Paper – Franklin Mill

SUBJECT: Review response for DEQ's permit application #VA0004162



Our office has reviewed the application for impacts to surface waters associated with the operation of a paper mill. The discharge will be to the Blackwater River in Isle of Wight County.

No public raw water intakes in Virginia were found downstream from the discharge area. The nearest upstream raw water intake is located approximately 12 miles from the discharge area. The name of the facility is the Blackwater River Raw Water Intake (SDWIS Facility Code IN001), owned by the City of Norfolk, and operated under PWSID 3710100. Since the receiving water is not tidal influenced, there should be no impact to the intake.

EGJ/shb

cc: VDH, ODW – Central Office
VDH, City of Norfolk Health Department
Ms. Kristen M. Lentz, PE, Director of Utilities, City of Norfolk
Mr. Charles L. Hairston, Mill Manager, International Paper – Franklin Mill



13-3

COMMONWEALTH of VIRGINIA

Department of Health DIVISION OF SHELLFISH SANITATION

109 Governor Street, Room 614-B
Richmond, VA 23219

Ph: 804-864-7487
Fax: 804-864-7481

MEMORANDUM

DATE: 6/22/2015
TO: Debra L. Thompson
Department of Environmental Quality
FROM: B. Keith Skiles, MPH, Director
Division of Shellfish Sanitation

SUBJECT: International Paper - Franklin Mill

City / County: Franklin, VA

Waterbody: Blackwater River

Type: ☒ VPDES ☐ VMRC ☐ VPA ☐ VWP ☐ JPA ☐ Other:

Application / Permit Number: VA0004162

- ☒ The project will not affect shellfish growing waters.
- ☐ The project is located in or adjacent to approved shellfish growing waters, however, the activity as described will not require a change in classification.
- ☐ The project is located in or adjacent to condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.
- ☐ The project will affect condemned shellfish waters and will not cause an increase in the size of the total condemnation. However, a prohibited area (an area from which shellfish relay to approved waters for self-purification is not allowed) will be required within a portion of the currently condemned area. See comments.
- ☐ A buffer zone (including a prohibited area) has been previously established in the vicinity of this discharge, however, the closure will have to be revised. Map attached.
- ☐ This project will affect approved shellfish waters. If this discharge is approved, a buffer zone (including a prohibited area) will be established in the vicinity of the discharge. Map attached.
- ☐ Other.

ADDITIONAL
COMMENTS:

Area #:

eta

13-4

Thompson, Debra (DEQ)

From: Hillman, Brett [brett_hillman@fws.gov]
Sent: Thursday, August 13, 2015 10:04 AM
To: Thompson, Debra (DEQ)
Subject: Re: T&E Coordination for International Paper-Franklin Mill - VPDES Permit No. VA0004162

Hi Debbie,

After reviewing all of the materials you provided, I have no comments with respect to federally listed species in Virginia. However, since the discharge from this facility flows into North Carolina, we recommend you coordinate with Sarah McRae (sarah.mcrae@fws.gov) of the Raleigh Ecological Services Field Offices regarding the potential for federally listed species in North Carolina to be impacted by this permit.

Best regards,
Brett

Brett Hillman
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Phone: 804-824-2420
Fax: 804-693-9032
Email: brett_hillman@fws.gov

On Wed, Aug 12, 2015 at 3:25 PM, Hillman, Brett <brett_hillman@fws.gov> wrote:
Thanks so much for the quick response! This info will definitely be helpful as I continue this review.

Brett

Brett Hillman
Fish and Wildlife Biologist
U.S. Fish & Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, VA 23061

Phone: 804-824-2420
Fax: 804-693-9032
Email: brett_hillman@fws.gov

On Wed, Aug 12, 2015 at 3:07 PM, Thompson, Debra (DEQ) <Debra.Thompson@deq.virginia.gov> wrote:

Hi Brett,

13-5

The DP and FS for the reissuance are not yet ready to send out for review or information. I have attached the current permit and associated FS; it was actually developed and modified in 2012 at the time the plant was put back into operation after closing some years prior to 2012.

Regarding the comment letter you attached, DEQ did not extend the discharge season as requested by IP. The special condition section of the permit (#13) does address the opportunity for the company to request an emergency discharge and identifies the requirements necessary for DEQ to consider such a request.

I hope this information is helpful; please let me know if I can provide any additional information or assistance, Debbie

From: Hillman, Brett [mailto:brett_hillman@fws.gov]
Sent: Wednesday, August 12, 2015 2:20 PM

To: Thompson, Debra (DEQ)
Subject: Re: T&E Coordination for International Paper-Franklin Mill - VPDES Permit No. VA0004162

Hey Debbie,

I have a couple of questions about this permit so far:

- 1) When you get a chance, could you please send me the current permit and fact sheet (or the drafts for the next permit cycle if those are available)?
- 2) In 2008, my predecessor, Cindy Kane, sent the attached letter to DEQ. It looks like IP wanted to extend their wastewater discharge season but we had some concerns about that. I can't tell what happened after Cindy sent this letter. Do you have any information about this issue?

Thanks in advance!

Brett

Molly Joseph Ward
Secretary of Natural Resources

Clyde E. Cristman
Director



13-6
Joe Elton
Deputy Director of Operations

Rochelle Altholz
*Deputy Director of
Administration and Finance*

David Dowling
*Deputy Director of
Soil and Water and Dam Safety*

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

MEMORANDUM

DATE: August 25, 2015
TO: Debra Thompson, DEQ-TRO
FROM: Alli Baird, DCR-DNH
SUBJECT: VA0004162. International Paper – Franklin Mill Permit Reissuance
Due August 28, 2015

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Outfalls 009 and 011

Biotics historically documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Outfalls 001, 002, 006, 007, 008, 010, 012, 013 and 014

Biotics documents the presence of natural heritage resources within two miles of the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Ernie Aschenbach at 804-367-2733 or Ernie.Aschenbach@dgif.virginia.gov.

13-7

Thompson, Debra (DEQ)

From: Howell, Jennifer (DEQ)
Sent: Monday, August 31, 2015 9:15 AM
To: Thompson, Debra (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Good morning Debbie,

The DO minimum concentration of 4 mg/L would still be appropriate for discharge into this water. Even though the natural conditions process will change this portion of the Blackwater River from Class II to Class VII, there is no DO standard set for swamp waters. In addition, during the development of the natural condition report, an assessment of the data showed the discharge itself did not have an impact on the DO levels in the River. The DO sampling would continue to show that the facility is not considered an anthropogenic contributor to the low DO.

I also put the TMDL_Attachment_1 in the permit folder. It is the actual approval letter from EPA. Please let me know if you have any questions.

Thanks,
Jen

Jennifer S. Howell
TMDL Project Coordinator
Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd
Virginia Beach, VA 23462
(757) 518-2111
(757) 518-2009 fax
jennifer.howell@deq.virginia.gov

From: Thompson, Debra (DEQ)
Sent: Friday, August 28, 2015 3:41 PM
To: Howell, Jennifer (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Sure! I am off Mon and Tues. Will be in the office on Wednesday to take care of IP, Thanks, Debbie

From: Howell, Jennifer (DEQ)
Sent: Friday, August 28, 2015 3:40 PM
To: Thompson, Debra (DEQ)
Subject: RE: D.O. Limit for D.O. for IP

Hi Debbie,

I have been in a meeting and now leaving for the day. Would you mind waiting until Monday for a response?

Thanks

Jennifer S. Howell

13-8

TMDL Project Coordinator
Virginia Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd
Virginia Beach, VA 23462
(757) 518-2111
(757) 518-2009 fax
jennifer.howell@deq.virginia.gov

From: Thompson, Debra (DEQ)
Sent: Friday, August 28, 2015 2:14 PM
To: Howell, Jennifer (DEQ)
Subject: D.O. Limit for D.O. for IP

Hey Jen,
What are you looking for regarding your comment to include DO in the permit? Possible minimum? Thanks,
Debbie

*Debra L. Thompson
Environmental Specialist II
VA Department of Environmental Quality
5636 Southern Boulevard
Virginia Beach, VA 23462
(757) 518-2162 phone*

EMAIL ADDRESS:
debra.thompson@deq.virginia.gov
Office Info: <http://www.deq.virginia.gov/regions/tidewater.html>



617
PAP ✓
PAP

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

5636 Southern Boulevard
Virginia Beach, VA 23462
www.deq.state.va.us

Robert G. Burnley
Director

Francis L. Daniel
Tidewater Regional Director
(757) 518-2000

September 20, 2002

Ms. Sheryl S. Raulston
Environmental Affairs Manager
International Paper, Franklin Mill
34040 Union Camp Drive
Franklin, VA 23851

Re: VPDES VA0004162; Groundwater Monitoring Plan
International Paper Franklin Mill
Franklin, VA

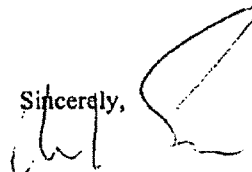
Dear Ms. Raulston;

We have reviewed the revised Groundwater Monitoring Plan for the Franklin Mill. The revised Plan satisfies the requirements in VPDES permit VA0004162, and the Plan is approved as submitted. Thank you for your cooperation in submitting the revised Plan. Please note that any changes to the Plan will require review and approval from this office.

There are certain items to note in regard to the Plan. If there are any changes to the groundwater uses or if it is suspected that seepage from the area of C Pond is increasing, the Plan may need to be revised to address changes in the area of C Pond. If any well in the area of the ASB is damaged or destroyed, we would expect that a suitable replacement well would be installed prior to the next scheduled sampling event. If any groundwater sampling event indicates that the sampling results exceed the groundwater comparison values listed in Table 3-3, the Annual Report shall note the exceedances, and the DEQ may request a meeting to discuss future sampling requirements, including the possibility of resuming instream sampling.

If you have any questions, or need additional information, please contact me at the above address, or by telephone at (757) 518-2105.

Sincerely,



Mark H. Sauer
Permit Engineer

13-10

617
ppm

INTERNATIONAL PAPER

34040 Union Camp Drive
Franklin, VA 23851

September 13, 2002

Certified Mail
Return Receipt Requested



Mr. Mark Sauer
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

**Re: VPDES Groundwater Monitoring Plan
International Paper - VPDES Permit No. VA0004162**

Dear Mr. Sauer:

Please find enclosed International Paper's revised VPDES Groundwater Monitoring Plan (Plan). This Plan was originally submitted to the Department of Environmental Quality (DEQ) in April 2000 and has been revised in accordance with the DEQ comment letter on this plan dated May 22, 2001, discussions between DEQ and International Paper on March 14, 2002, and International Paper's meeting summary submitted to DEQ in a letter dated April 30, 2002.

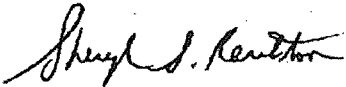
As described in the revised Plan, International Paper conducted the additional field investigations agreed to during the March 14, 2002 meeting and has incorporated the results of this field work into the Plan. The field work confirmed the site conceptual flow model between the ASB and the Blackwater River and International Paper used this model to calculate groundwater comparison values in accordance with the procedures agreed to at the March meeting and described in the meeting summary submitted to DEQ in April 2002.

If you have any questions concerning the information included in this letter, please contact Ellen Cobb at 569-4885.

13-11

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Sheryl S. Raulston
Environmental Affairs Manager



13-12

Attachment I

International Paper Groundwater Monitoring Program




VPDES VA0004162

Aerated Stabilization Basin (ASB)

Monitoring Locations

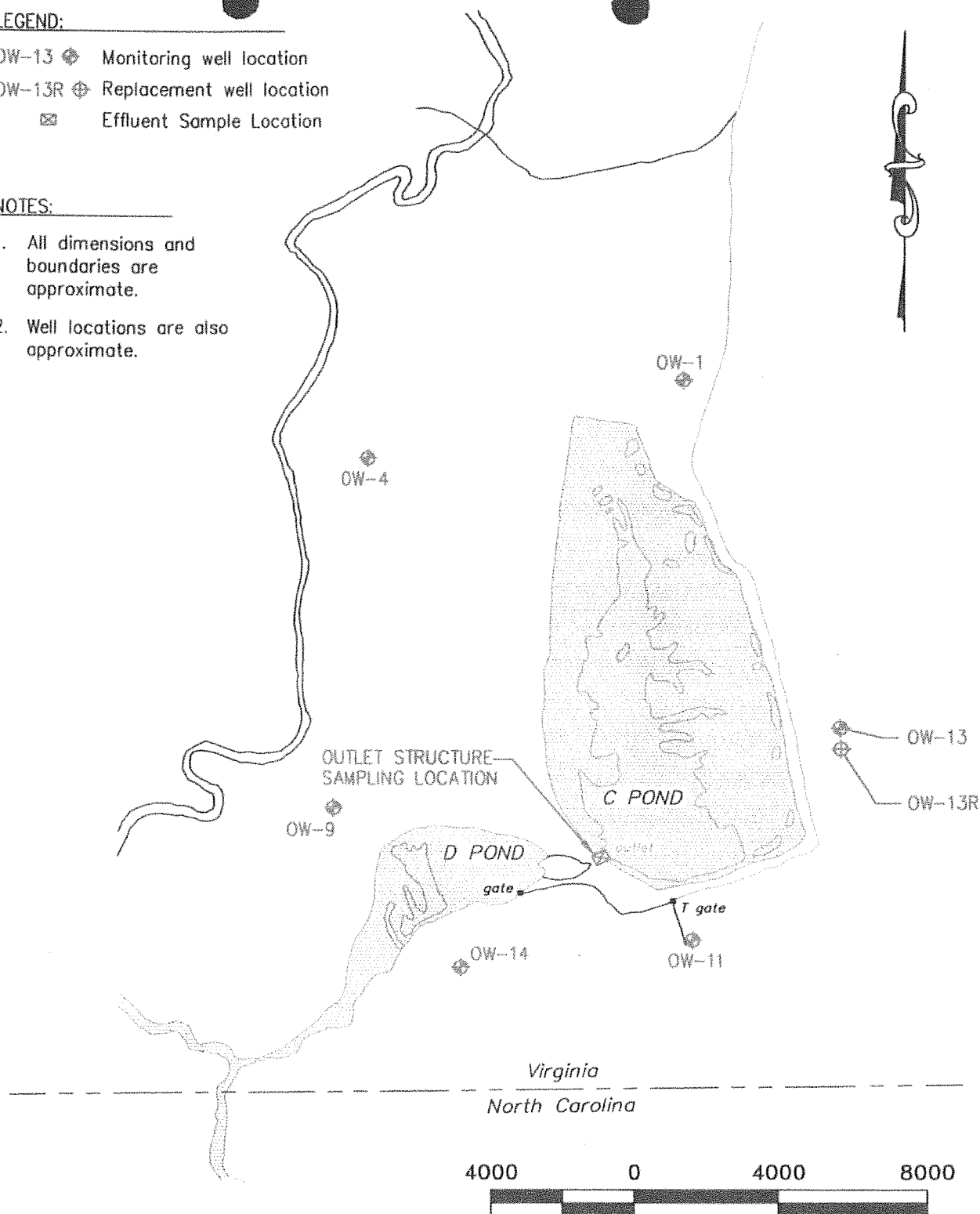
13-13

LEGEND:

- OW-13  Monitoring well location
- OW-13R  Replacement well location
-  Effluent Sample Location

NOTES:

1. All dimensions and boundaries are approximate.
2. Well locations are also approximate.



Source: Aerial photo provided by Union Camp; quadrangle & year unknown.

ENSR
INTERNATIONAL

7041 Old Wake Forest Road Suite 103
Raleigh, North Carolina 27616
PHONE: (919) 872-6600
FAX: (919) 872-7996
WEB: HTTP://WWW.ENSUR.COM

REVISIONS			
NO.	DESCRIPTION:	DATE:	BY:

**WELL LOCATION MAP
C-POND AREA**

International Paper
Franklin, Virginia

DRAWN BY:	DATE:	PROJECT NUMBER:
TDF	03/02/00	06890-260

DRAWING NUMBER:

B00002A

SCALE:

1" = 4000'

SHEET NUMBER:

Attachment II

International Paper Groundwater Monitoring Program



VPDES VA0004162

C-Pond

Monitoring Locations

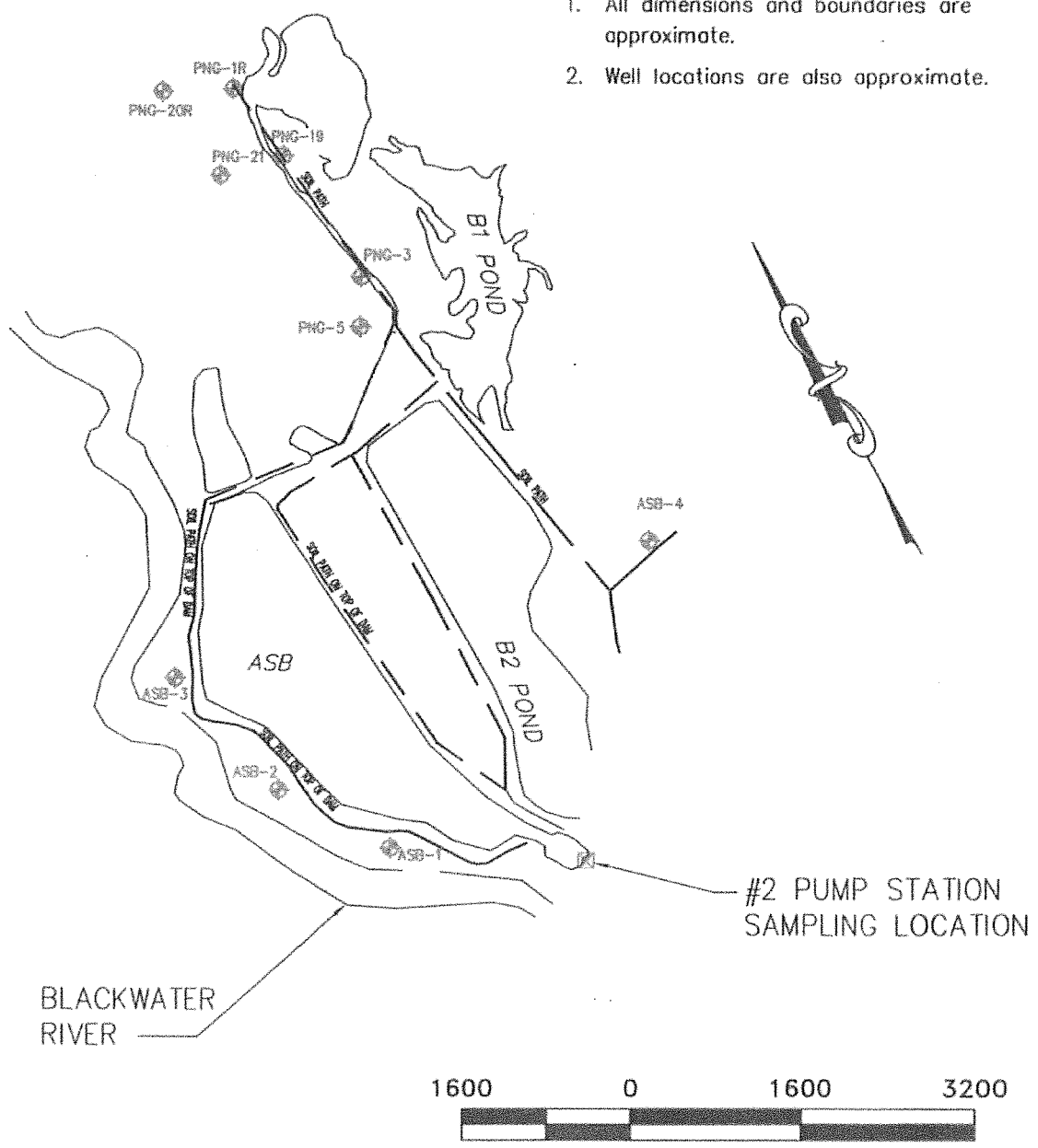
13-15

LEGEND:


- ASB-4  Monitoring well location
 Effluent Sample Location

NOTES:

1. All dimensions and boundaries are approximate.
2. Well locations are also approximate.



Source: Aerial photo provided by Union Camp; quadrangle & year unknown. Taken after Malcolm Pirnie VPDES Groundwater Monitoring Plan, 1995.

 ENSR INTERNATIONAL 7041 Old Wake Forest Road Suite 103 Raleigh, North Carolina 27616 PHONE: (919) 872-6600 FAX: (919) 872-7996 WEB: HTTP://WWW.ENSRCOM	REVISIONS				WELL LOCATION MAP ASB AREA International Paper Franklin, Virginia			DRAWING NUMBER: B00001A	
	NO.	DESCRIPTION:	DATE:	BY:				SCALE: 1" = 1600'	
					DRAWN BY: TDF	DATE: 12/05/00	PROJECT NUMBER: 06890-260	SHEET NUMBER:	

13-16

Attachment VIII

International Paper Groundwater Monitoring Program

VPDES VA0004162

Aerated Stabilization (ASB)





Groundwater Flow Diagram

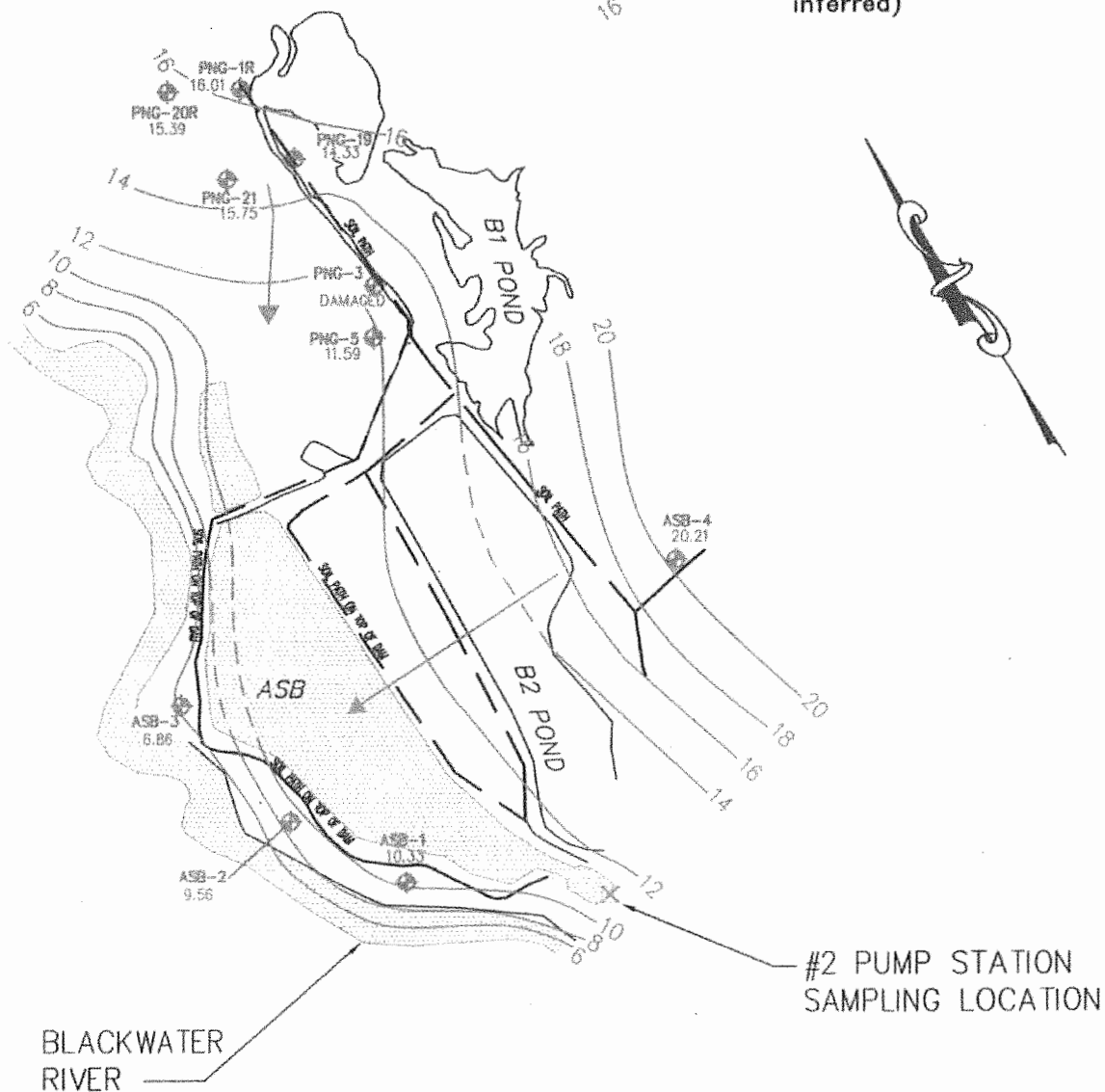
13-17

NOTES:

1. All dimensions and boundaries are approximate.
2. Well locations are also approximate.
3. Water levels collected on 06/05/01

LEGEND:

- ASB-4  Monitoring well location
-  Effluent Sample Location
-  Groundwater Flow Direction
-  Groundwater Elevation Contour (dashed where inferred)



Source: Aerial photo provided by Union Camp; quadrangle & year unknown. Taken after Malcolm Pirnie VPDES Groundwater Monitoring Plan, 1995.

1600 0 1600 3200

SCALE IN FEET

1" = 1600'

ENSR
INTERNATIONAL

7041 Old Wake Forest Road Suite 103
Raleigh, North Carolina 27616
PHONE: (919) 872-6600
FAX: (919) 872-7996
WEB: HTTP://WWW.ENSUR.COM

REVISIONS			
NO.	DESCRIPTION:	DATE:	BY:

**GROUNDWATER FLOW MAP
ASB AREA
(2ND QTR 2001)**

International Paper
Franklin, Virginia

DRAWN BY:	DATE:	PROJECT NUMBER:
TDF	05/07/01	06890-260

DRAWING NUMBER:

C20019A

SCALE:

AS SHOWN

SHEET NUMBER:

13-19

Attachment X

International Paper Groundwater Monitoring Program

VPDES VA0004162

C-Pond

Groundwater Flow Diagram

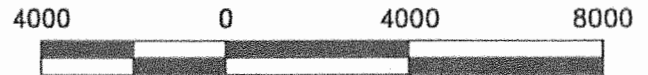
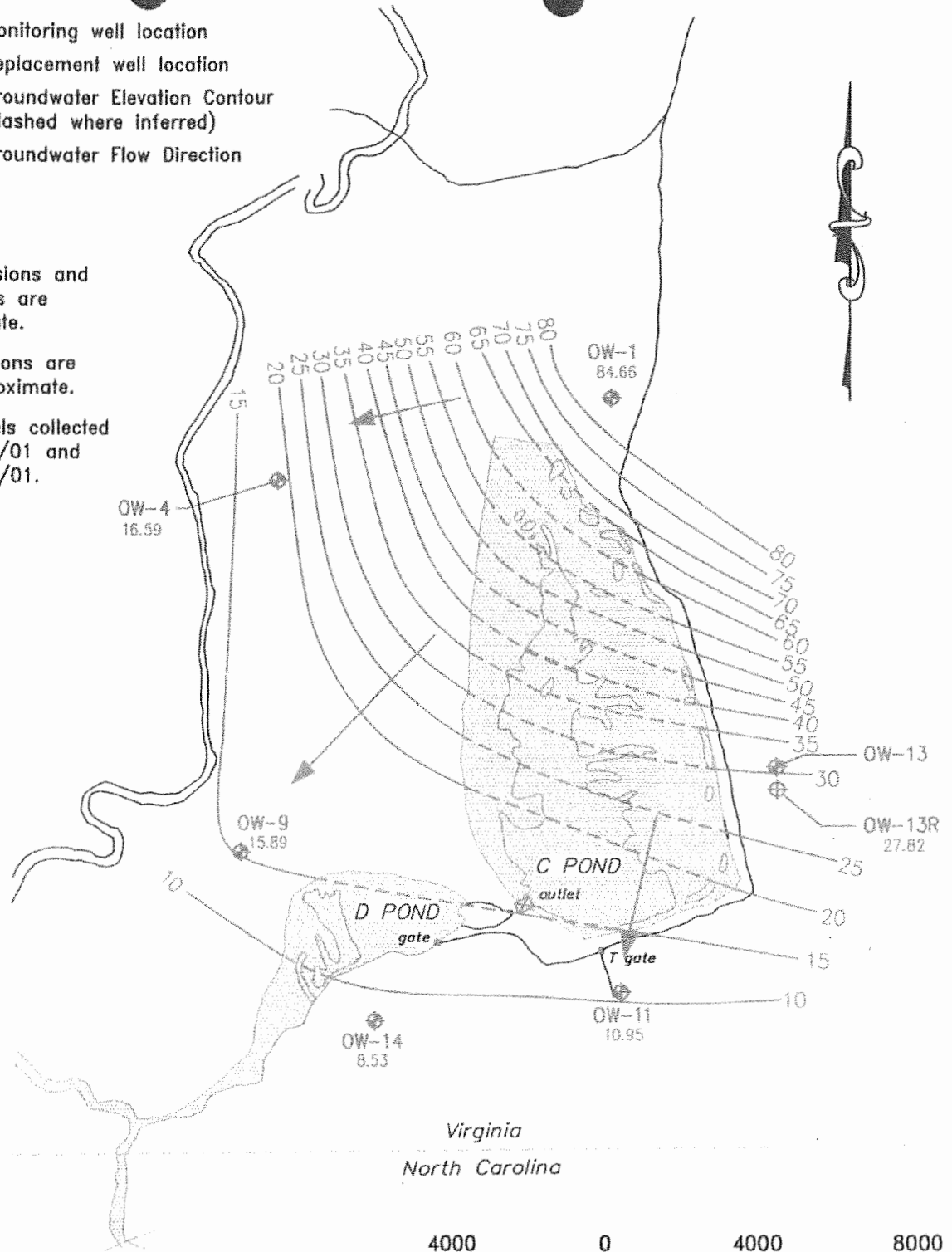
13-20

LEGEND:

- OW-13 ♦ Monitoring well location
- OW-13R ⊕ Replacement well location
- - - Groundwater Elevation Contour (dashed where inferred)
- Groundwater Flow Direction

NOTES:

1. All dimensions and boundaries are approximate.
2. Well locations are also approximate.
3. Water levels collected on 10/10/01 and On 10/11/01.



SCALE IN FEET

1" = 4000'

Source: Aerial photo provided by Union Camp; quadrangle & year unknown.



7041 Old Wake Forest Road Suite 103
Raleigh, North Carolina 27616
PHONE: (919) 872-6600
FAX: (919) 872-7996
WEB: [HTTP://WWW.ENSR.COM](http://www.ensr.com)

REVISIONS			
NO.	DESCRIPTION:	DATE:	BY:

**GROUNDWATER FLOW MAP
C-POND
(4TH QTR 2001)**

International Paper
Franklin, Virginia

DRAWN BY:	DATE:	PROJECT NUMBER:
TDF	12/26/01	06890-260

DRAWING NUMBER:

B10383A

SCALE:

AS SHOWN

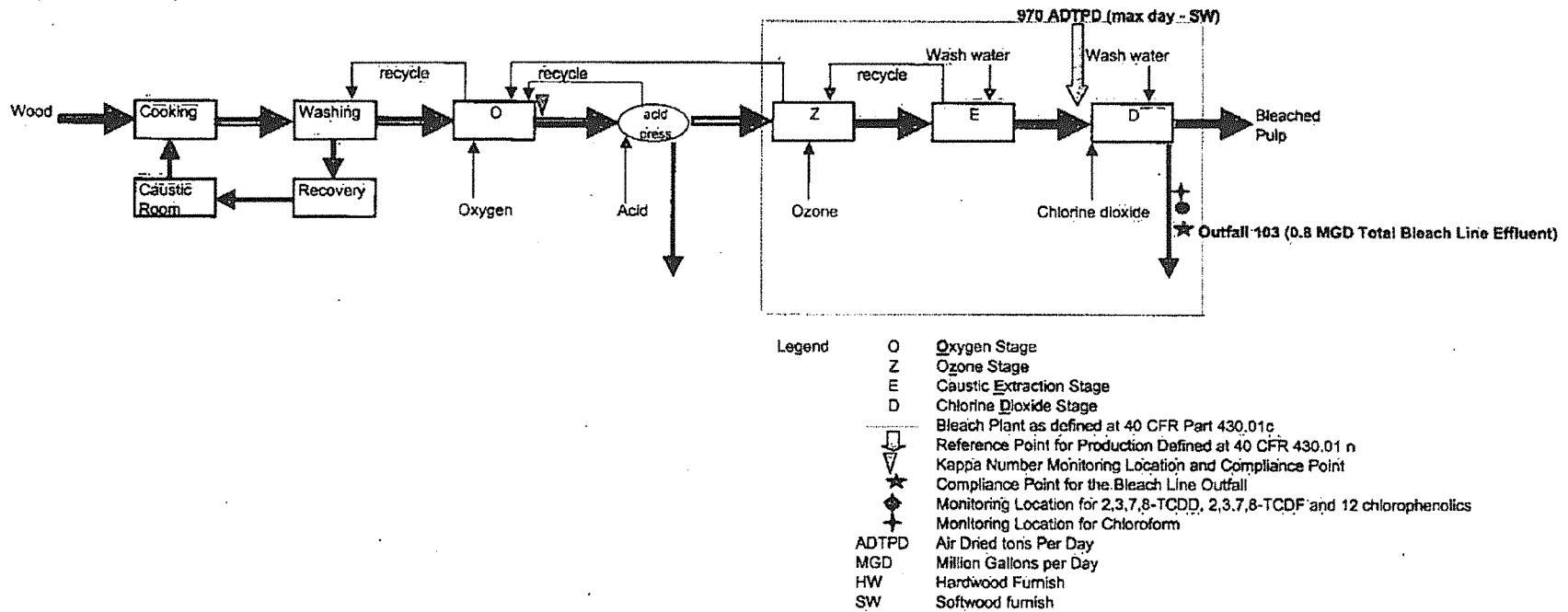
SHEET NUMBER:

Figure 2

F Bleach Line

Current Configuration
Softwood Furnish

Enrolled in Cluster Rule Voluntary Advanced Technology Incentives Program (VATIP)
Currently VATIP Tier I Compliant



13-21

13-72

FORM 2C—SECTION V.D
International Paper-Franklin Mill
VPDES Permit No VA0004162

The following pollutants from Table 2c-3 are incidental to the kraft pulping and bleaching process and, therefore could potentially be discharged from outfall 001 in trace quantities. No analytical data is available.

1. Acetaldehyde
2. Carbon disulfide
3. Cresol
4. Formaldehyde
5. Isoprene
6. Methyl mercaptan
7. Xylene

(Reference: NCASI Environmental Resource Handbook for Pulp and Paper Mills, Revised March 1, 2002. Table 1.6.3-2 Chemicals on the CERCLA/SARA Lists that are Commonly Found at Pulp and Paper Mills)

In addition to those pollutants listed above, the following Hazardous Substances from Table 2c-4 are also used in and around or are incidental to the kraft pulping, bleaching and papermaking processes and, while not intentionally or routinely discharged, they could potentially be discharged from outfall 001

Substance	Source	Max Potential Spill Quantity(lbs)
Acrolein	Incidental by product	Negligible
Aluminum Sulfate *	Storage tank	140,000
Ammonia	Storage tank	8,000
Chloroform	Incidental byproduct	Negligible (internal outfall data reported on
Ferric Sulfate *	Storage tank	48,000
Hydrochloric acid *	Storage tank	250,000
Hydrogen sulfide	Incidental byproduct	Negligible
Nitric acid *	Storage tank	12,000
Pentachlorophenol	Incidental byproduct	Negligible (ND in form 2C testing)
Phosphoric acid *	Storage tank	7,000
Sodium hydrosulfide	Storage tank, rail car	140,000
Sodium hydroxide •	Storage tank	2,200,000
Sodium hypochlorite •	Storage tank	132,000
Sulfuric acid *	Storage tank, rail car	3,200,000

The mill's effluent treatment system is capable of treating and/or reducing the concentrations of the substances listed above through mixing, dilution,

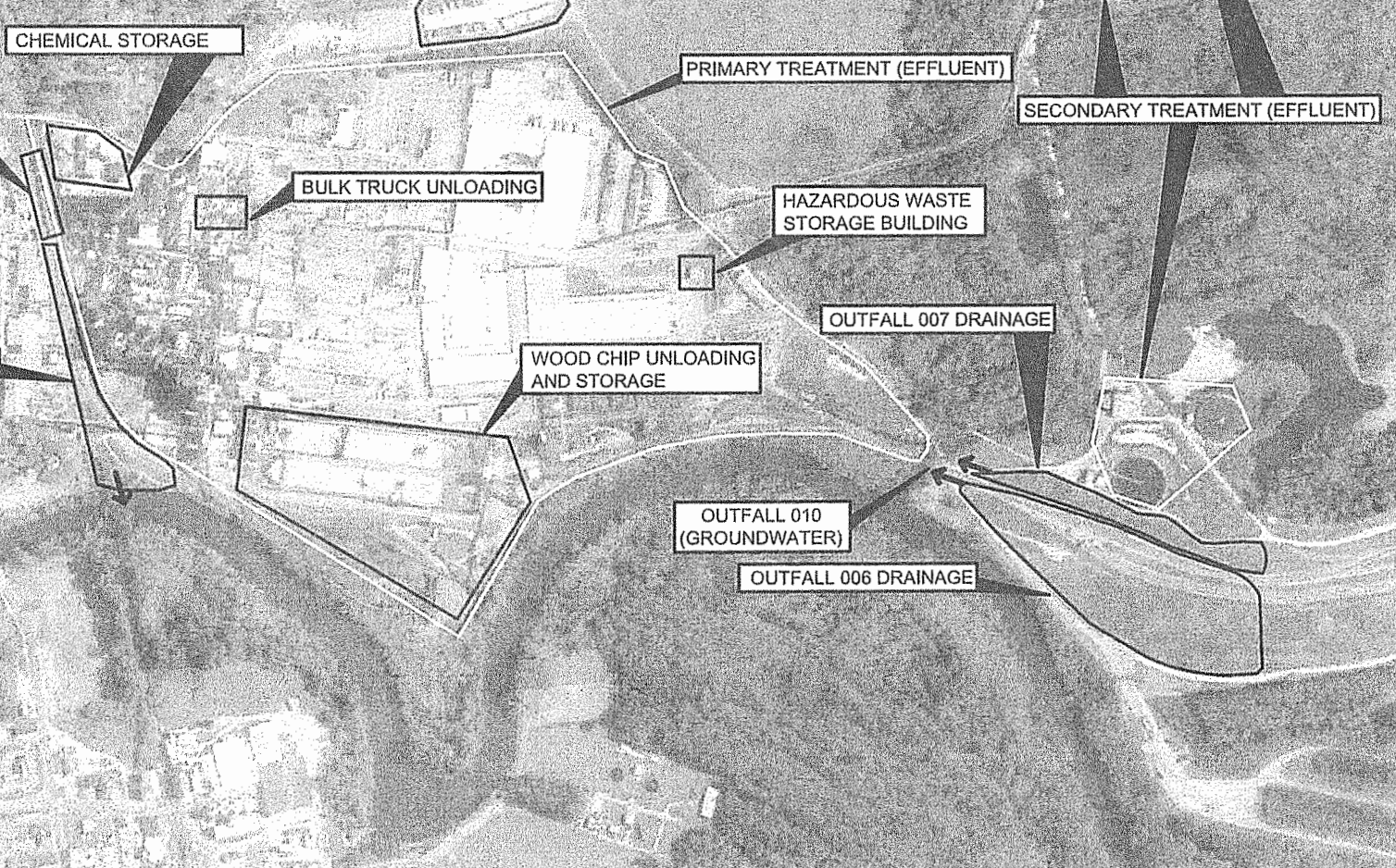
13-53

neutralization, oxidation, flocculation/settling, and/or biological treatment to reduce organics.

The mill's VPDES permit contains a pH limitation of 6.0 to 9.0. The pH of the effluent is monitored at Outfall 001 and serves as an indicator of the effectiveness of the neutralization of the acidic and caustic substances noted with an asterisk above. The pH limit controls the releases of these substances by requiring our effluent to fall in the neutral range of 6.0 to 9.0. We identify these substances as part of this application and feel the limitation of pH fulfills the requirements allowing discharges of these substances to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.

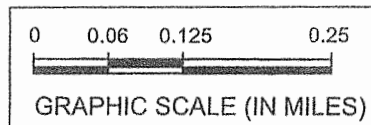
The mill's VPDES Permit includes chloroform limitations and monitoring requirements at internal outfall 103. Thus the limitation of chloroform fulfills the requirements allowing discharges of chloroform to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.

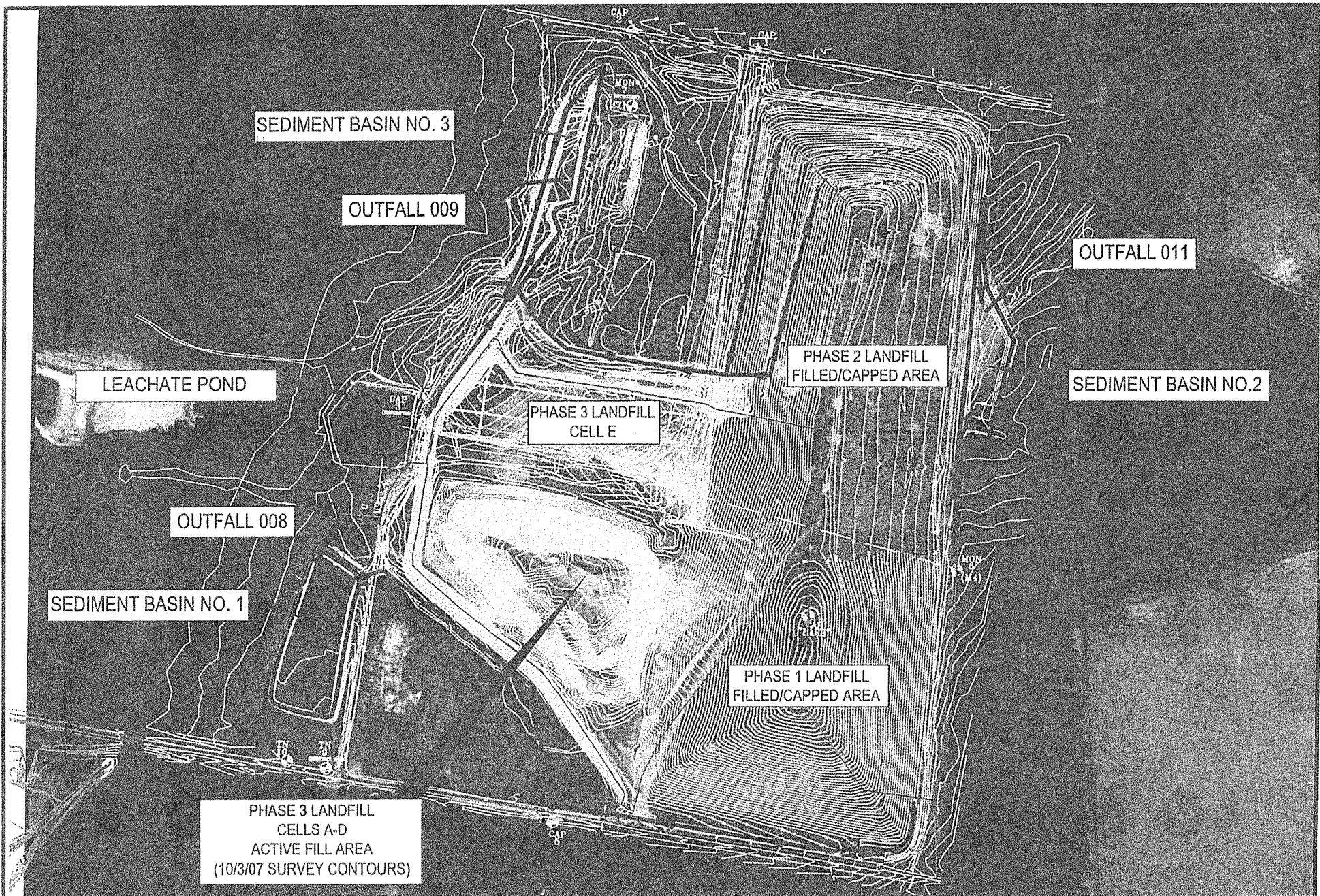
Similarly, the VPDES Permit limitations on BOD and AOX at outfall 001 would fulfill the requirements allowing discharges of the remainder of the noted substances to be excluded from the requirements of Section 311 as described in Section 117.12 of 40 CFR.



13-944

International Paper
NPDES Form 2F, Section III
Map F - Mill Site Drainage Map





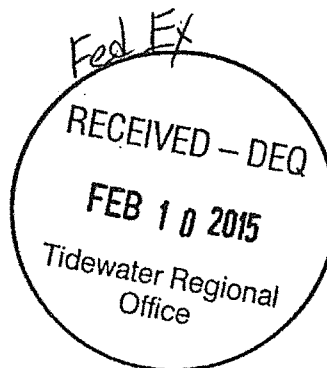
AECOM

International Paper
NPDES Form 2F, Section III
Map F - Landfill Site Drainage Map



0 125 250 500
GRAPHIC SCALE (IN FEET)

13-75



34040 Union Camp Drive
Franklin, VA 23851

February 6, 2015

Mr. Mark Sauer
Department of Environmental Quality
Tidewater Regional Office
5636 Southern Blvd.
Virginia Beach, VA 23462

Re: 2014 Groundwater Monitoring Report (VPDES Permit No. VA0004162)

Dear Mr. Sauer:

In accordance with its Virginia Department of Environmental Quality (DEQ)-approved Groundwater Monitoring Plan ("Plan"), International Paper is submitting this 2014 groundwater monitoring report. The purpose of the Plan is to evaluate the effects of effluent seepage from the Aerated Stabilization Basin (ASB) to surrounding sensitive receptors.

International Paper's current Virginia Pollutant Discharge Elimination System (VPDES) Groundwater Monitoring Plan (Plan) was submitted to DEQ in September 2002 with revised Plan pages approved by DEQ in April 2003. DEQ reissued International Paper's VPDES permit in 2005, 2010, and 2012, but no changes were made to the VPDES Groundwater Monitoring Plan. In an email dated July 17, 2006, DEQ approved the removal of staff gauge measurements from the Groundwater Monitoring Plan.

2014 Monitoring Activities

Monitoring activities performed during the spring and fall 2014 events were conducted in accordance with the approved Plan, with the approved changes described above. The spring monitoring activities were conducted on April 21, 2014. The fall monitoring activities were conducted on October 15, 2014. Four groundwater monitoring wells (ASB-1, ASB-2, ASB-3, and ASB-4) were sampled and the pH and water elevation of the ASB were measured during both 2014 sampling events. The ASB and associated groundwater monitoring wells are shown on Attachment I (ASB Area Map).

Groundwater Flow Analysis

Groundwater elevations were measured during the spring and fall 2014 sampling events. These data are provided and illustrated in Attachment II (2014 Groundwater Elevation Data) and Attachment III (2014 Groundwater Flow Maps). The groundwater elevations reflect a very flat water table and support the hydraulic parameters used in the conceptual model to determine the groundwater screening values outlined in the Groundwater Data Analysis section. The groundwater elevations show flow from the ASB towards the Blackwater River.



Groundwater Data and Analysis

The Plan includes a groundwater comparison value that has been calculated for each analyte using a surface water screening value (the Virginia Water Quality Standards [9 VAC 25-260-140]) for constituents with standards and a secondary chronic value for constituents without standards (chloroform) to back calculate groundwater screening criteria. Comparison of the analyte concentrations to the screening criteria was performed for the data collected in the spring and fall of 2014. This comparison, summarized in Attachment IV (2014 Data Summary), shows no exceedance of any screening value, with the exception of pH in upgradient well ASB-4 as discussed below.

The comparison value in the 2002 Plan for pH is the Virginia Water Quality Standard of 6.0 to 9.0. During the spring and fall 2014 sampling events, the pH measured at up-gradient monitoring well ASB-4 was below 6.0; however, pH in the ASB was between 7.8-7.9. In terms of pH, the ASB was shown to improve the current downgradient groundwater quality, as the downgradient pH ranged from 6.4 to 7.0 during 2014. In accordance with previous discussions with DEQ, it was concluded that no ongoing degradation of groundwater pH was occurring and the ASB was considered in compliance for pH with the 2002 Plan and with DEQ's antidegradation policy, which states that the ASB cannot further degrade the pH quality of the river.

The permit does not include groundwater comparison values for Total Organic Carbon (TOC), Total Dissolved Solids (TDS), or hardness because aquatic life chronic values are not available for these constituents. As required by the permit, the results of the groundwater sampling for TOC, TDS and hardness were compared to previously collected data to evaluate for significant changes. These comparisons are shown in the period of record graphs in Attachment V (Graphs of Total Dissolved Solids, Hardness, and Total Organic Carbon). No significant changes were observed in the comparison of these constituents to previous data and the maximum concentrations of these constituents in 2014 are below the historical maximum concentrations of these constituents.

Based on the results of these comparisons, International Paper has concluded that no significant changes have occurred in the water quality downgradient of the ASB, and no exceedances of the comparison values for tested analytes have occurred.

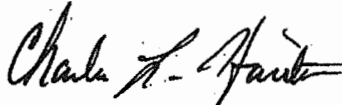
Summary

The 2014 semi-annual groundwater sampling confirms that the groundwater conditions at the ASB, including quality and gradient, have not changed.

If you have any questions concerning the information contained in this report or the conclusions drawn, please do not hesitate to contact Raye Moore at (757) 569-4793.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,



Charles L. Hairston
Mill Manager

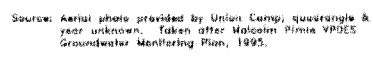
Enclosures: Attachment I, II, III, IV, V

cc: D. Simmons (AECOM) (electronic only)
M. Friedman (AECOM) (electronic only)

13-29

Attachment I

**International Paper Groundwater Monitoring Program
VPDES VA0004162
Aerated Stabilization Basin
ASB Area Map**

[illegible]

13-39

Attachment II

**International Paper Groundwater Monitoring Program
VPDES VA0004162
Aerated Stabilization Basin
2014 Groundwater Elevation Data**

Attachment II
International Paper Groundwater Monitoring Program
Aerated Stabilization Basin
2014 Groundwater Elevation Data

Location	Semiannual Event	Well Elevation (ft msl)	Depth to Water	Groundwater Elevation (ft msl)	Surface Water Elevation (ft msl)
ASB-1	4/21/2014	6.62	3.32	3.30	N/A
	10/15/2014		3.17	3.45	N/A
ASB-2	4/21/2014	5.76	1.54	4.22	N/A
	10/15/2014		2.03	3.73	N/A
ASB-3	4/21/2014	5.32	1.86	3.46	N/A
	10/15/2014		2.28	3.04	N/A
ASB-4	4/21/2014	27.36	5.40	21.96	N/A
	10/15/2014		8.45	18.91	N/A
ASB *	4/21/2014	N/A	N/A	N/A	14.00
	10/15/2014		N/A	N/A	14.70

ft msl - feet above mean sea level

N/A - not applicable

* As required by the permit, the surface water elevation of the ASB is determined at the time of groundwater sampling. The surface water elevation is read from a staff gauge located adjacent to the #2 pump station.

13-30

13-33

Attachment III

International Paper Groundwater Monitoring Program

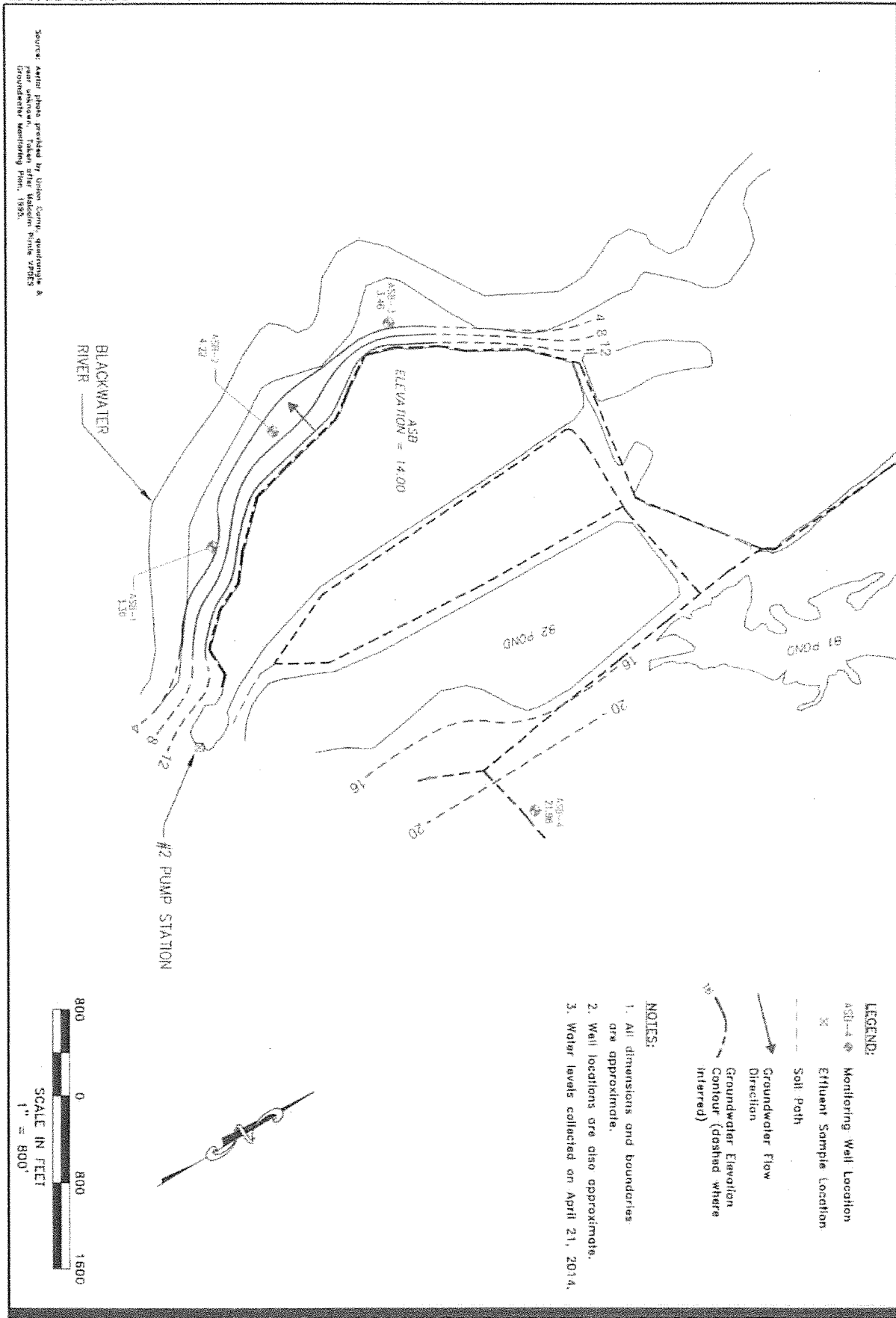
VPDES VA0004162

Aerated Stabilization Basin

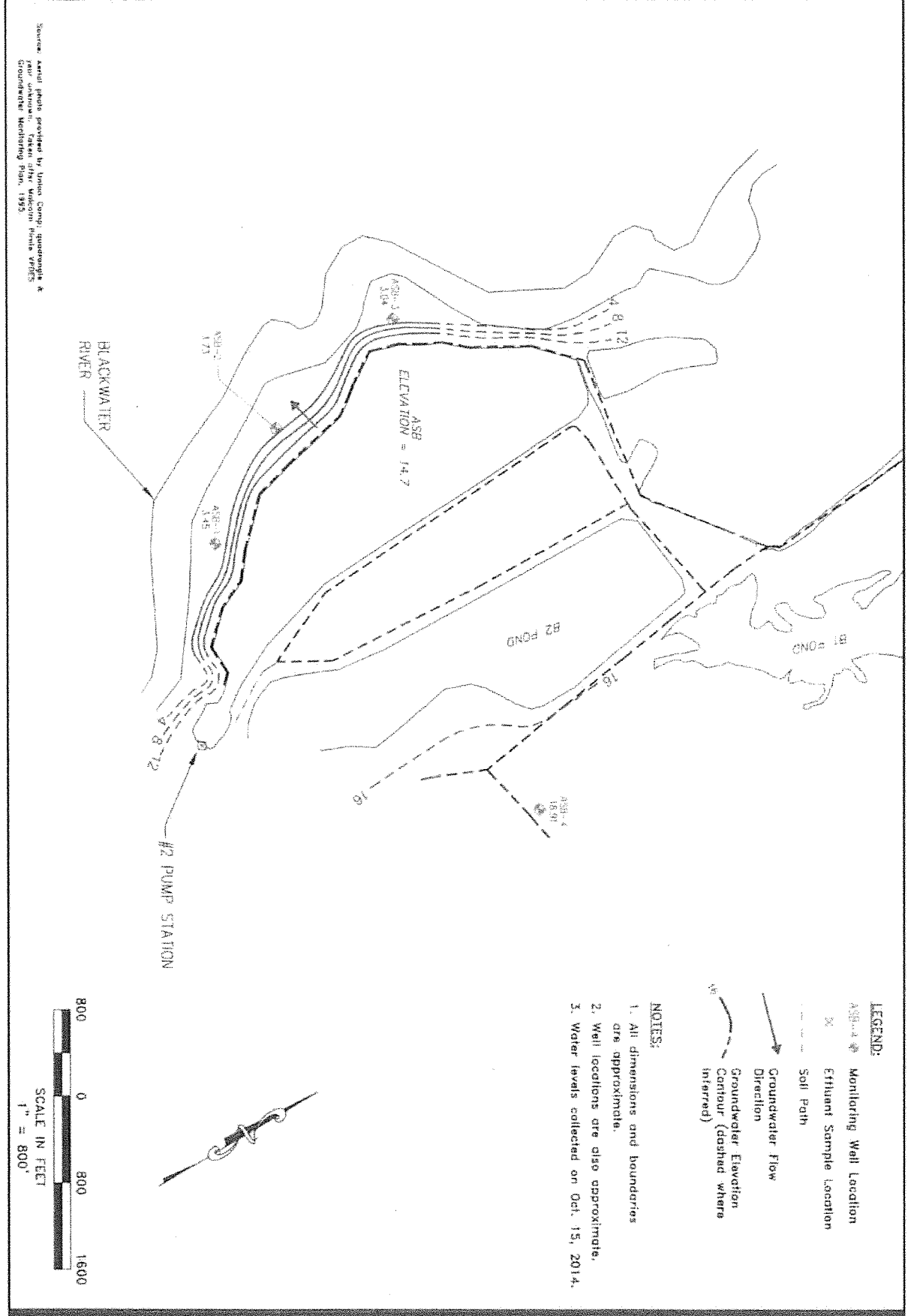
2014 Groundwater Flow Maps

1334

Reviewed by: ROBERTSON, 2014-12-19, 10:00 AM, 2014-12-19
 Drawing: 2. GROUNDWATER FLOW MAP FOR MONITORING AND TREATMENT OF ASB AT THE 1334 POND
 Project: 60284144 Date: 2014-12-19



13-35



13-316

Attachment IV

**International Paper Groundwater Monitoring Program
VPDES VA0004162
Aerated Stabilization Basin
2014 Data Summary**

ATTACHMENT IV

International Paper Groundwater Monitoring Program

Aerated Stabilization Basin (ASB)

Data Summary - Spring 2014 Semiannual Sampling Event - April 21, 2014

Location ID Sample ID Sample Date	Method	Unit	GW Standard	ASB-1 ASB1-114 04/21/2014	Pass/ Fail	ASB-1 ASB1-D-114 04/21/2014	Pass/ Fail	ASB-2 ASB2-114 04/21/2014	Pass/ Fail	ASB-3 ASB3-114 04/21/2014	Pass/ Fail	ASB-4 ASB4-114 04/21/2014	Pass/ Fail	ASB * ASB-114 04/21/2014	Equipment Blank ASB4-B-114 04/21/2014	Trip Blank ASB-TB-114 04/21/2014
Arsenic (a)	E200.7	ug/l	1976	49.4	Pass	47.7	Pass	27.8	Pass	128	Pass	ND	Pass	NA	ND	NA
Cadmium (a)	E200.7	ug/l	11.44	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Chromium (a)	E200.7	ug/l	2184	ND	Pass	ND	Pass	7.7 J	Pass	3.6 J	Pass	0.548 B	Pass	NA	ND	NA
Lead (a)	E200.7	ug/l	145.6	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Zinc (a)	E200.7	ug/l	1144	4.9 J	Pass	ND	Pass	5.8 J	Pass	5.2 J	Pass	ND	Pass	NA	ND	NA
Chloroform	E624	ug/l	291.2	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	ND
Dioxin	E1813B	pg/l	0.00001248	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Total Organic Carbon	SM20.5310 C	mg/l	—	36.2	—	45.1	—	63.5	—	64.4	—	1.1	—	NA	ND	NA
Total Dissolved Solids	SM2540C	mg/l	—	981	—	994	—	1200	—	1350	—	13	—	NA	ND	NA
Total Hardness (a)	SM2340C	mg/l	—	359	—	281	—	150	—	230	—	2.1	—	NA	ND	NA
pH	Field	—	6.0-9.0	6.97	Pass	NA	—	6.61	Pass	6.79	Pass	4.81	Pass (b)	7.88	—	NA
Specific Conductance	Field	ms/cm	—	1.69	—	NA	—	1.66	—	2.163	—	0.02	—	NA	—	NA
Temperature	Field	deg c	—	13.7	—	NA	—	14.0	—	13.0	—	13.7	—	NA	—	NA

Notes:

B = Present in Blank.

J = Estimated Value.

ND = Not detected above the quantification levels identified in the Groundwater Monitoring Plan.

NA = Not Analyzed.

(a) Groundwater samples were filtered for these analytes.

(b) See text Section 'Groundwater Data and Analysis'

"—" = No groundwater standard established.

ug/l = micrograms per liter

pg/l = picograms per liter

mg/l = milligrams per liter

deg c = degrees Celsius

ms/cm = millisiemens per centimeter

* = A grab sample was collected from the ASB to allow for field measurement of pH. Samples are not collected from the ASB for laboratory analysis.

13-37

ATTACHMENT IV

International Paper Groundwater Monitoring Program

Aerated Stabilization Basin (ASB)

Data Summary - Fall 2014 Semiannual Sampling Event - October 15, 2014

Location ID Sample ID Sample Date	Method	Unit	SW Standard	ASB-1 ASB1-214 10/15/2014	Pass/ Fail	ASB-1 ASB1-D-214 10/15/2014	Pass/ Fail	ASB-2 ASB2-214 10/15/2014	Pass/ Fail	ASB-3 ASB3-214 10/15/2014	Pass/ Fail	ASB-4 ASB4-214 10/15/2014	Pass/ Fail	ASB *	Equipment Blank ASB4-B-214 10/15/2014	Trip Blank ASB-TB-214 10/15/2014
Arsenic (a)	E200.7	ug/l	1976	64.9	Pass	65.9	Pass	27.1	Pass	155	Pass	ND	Pass	NA	ND	NA
Cadmium (a)	E200.7	ug/l	11.44	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Chromium (a)	E200.7	ug/l	2184	1.6 J	Pass	1.8 J	Pass	8.5 J	Pass	5.4 J	Pass	ND	Pass	NA	ND	NA
Lead (a)	E200.7	ug/l	145.6	1.8 B	Pass	1.6 B	Pass	ND	Pass	2.7 B	Pass	ND	Pass	NA	1.4 J	NA
Zinc (a)	E200.7	ug/l	1144	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Chloroform	E624	ug/l	291.2	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	ND
Dioxin	E1613B	pg/l	0.00001248	ND	Pass	ND	Pass	ND	Pass	ND	Pass	ND	Pass	NA	ND	NA
Total Organic Carbon	SM20 5310 C	mg/l	—	34.1	—	33.2	—	52.1	—	59.4	—	1.7	—	NA	ND	NA
Total Dissolved Solids	SM2540C	mg/l	—	1040	—	1050	—	1100	—	1340	—	20	—	NA	ND	NA
Total Hardness	SM 2340C	mg/l	—	185 J	—	107 J	—	75.7 J	—	170 J	—	ND	—	NA	ND	NA
pH	YSI	ph units	6.0-9.0	6.73	Pass	NA	—	6.41	Pass	6.64	Pass	4.15	Pass (b)	7.83	NA	NA
Specific Conductance	YSI	ms/cm	—	1.92	—	NA	—	1.87	—	2.42	—	0.023	—	NA	NA	NA
Temperature	YSI	deg c	—	17.8	—	NA	—	17.8	—	18.5	—	19.30	—	NA	NA	NA

Notes:

B = Present in Blank.

J = Estimated Value.

ND = Not Detected above the quantification levels identified in the Groundwater Monitoring Plan.

NA = Not Analyzed.

(a) Groundwater samples were filtered for these analytes.

(b) See text Section 'Groundwater Data & Analysis'

"—" = No groundwater standard established.

ug/l = micrograms per liter

pg/l = picograms per liter

mg/l = milligrams per liter

ms/cm = millisiemens per centimeter

deg c = degrees Celsius

* = A grab sample was collected from the ASB to allow for field measurement of pH. Samples are not collected from the ASB for laboratory analysis.

1338

13-29

Attachment V

International Paper Groundwater Monitoring Program

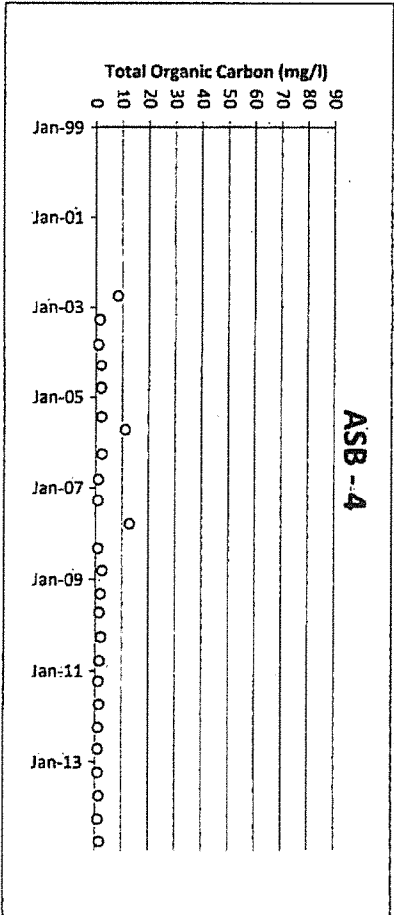
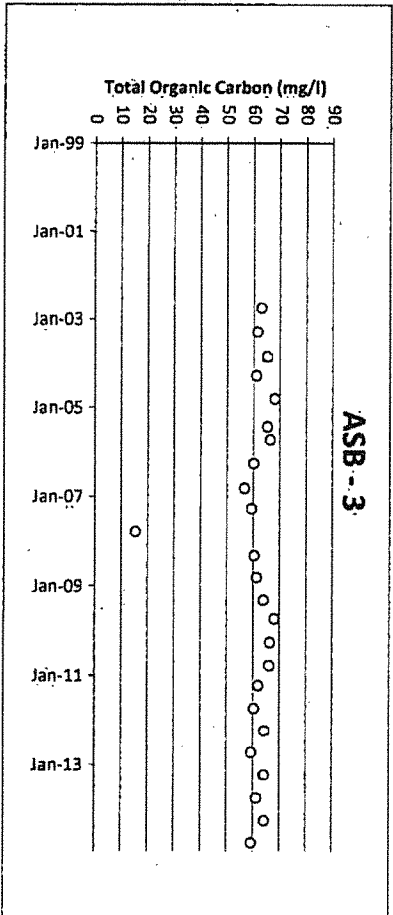
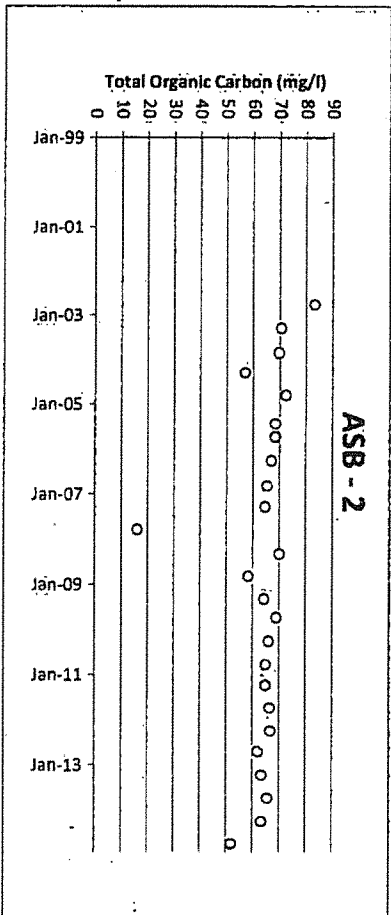
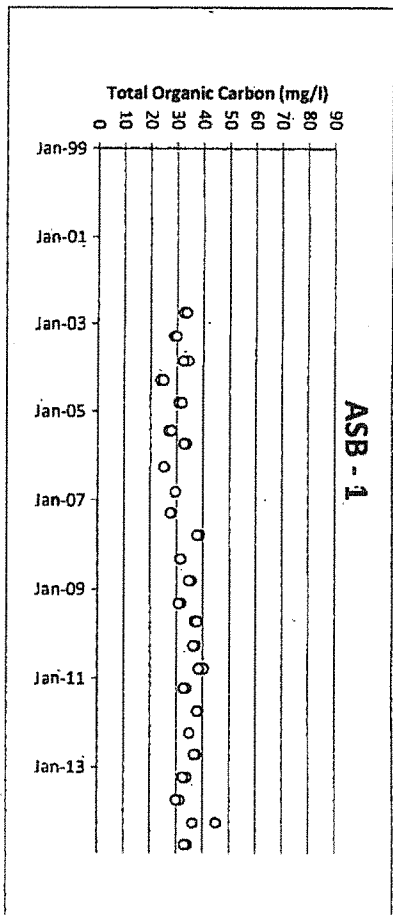
VPDES VA0004162

Aerated Stabilization Basin

Graphs of Total Dissolved Solids, Hardness, and Total Organic Carbon

Attachment V
International Paper Groundwater Monitoring Program
Aerated Stabilization Basin (ASB)
Graphs - Total Organic Carbon

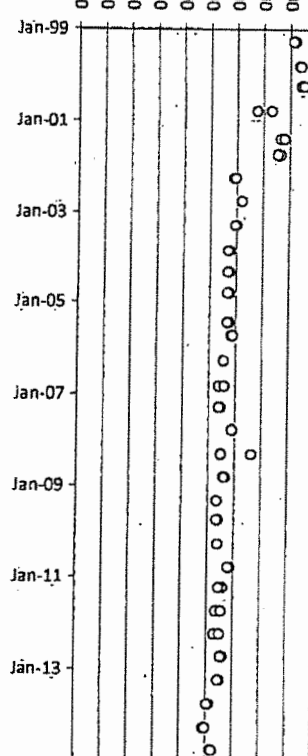
13-40



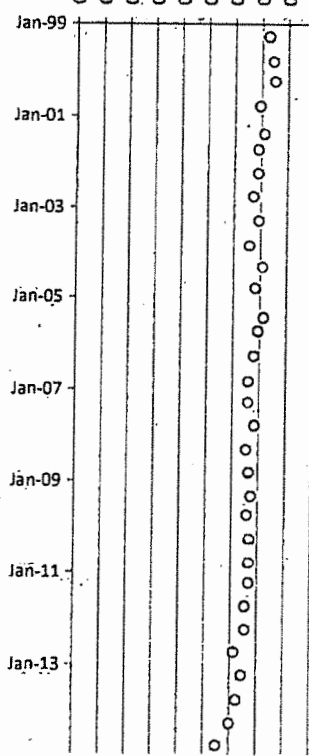
mg/l - milligrams per liter

13-41

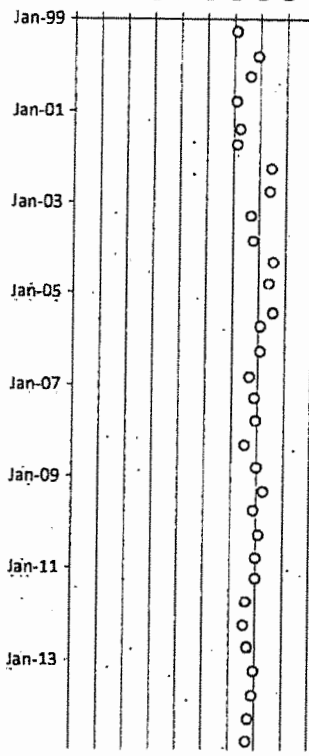
ASB - 1



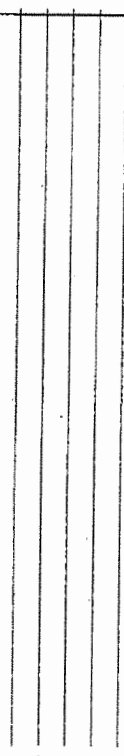
ASB - 2



ASB - 3

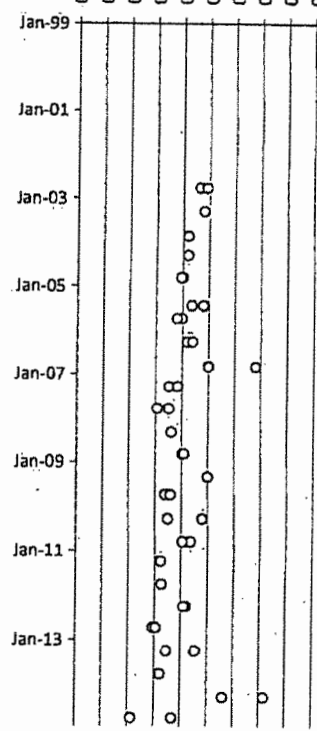


ASB - 4

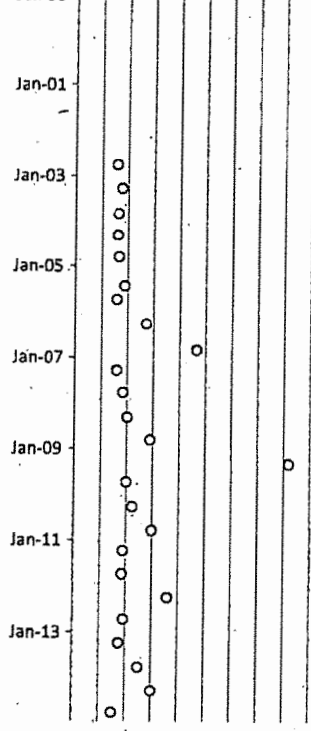


13-242

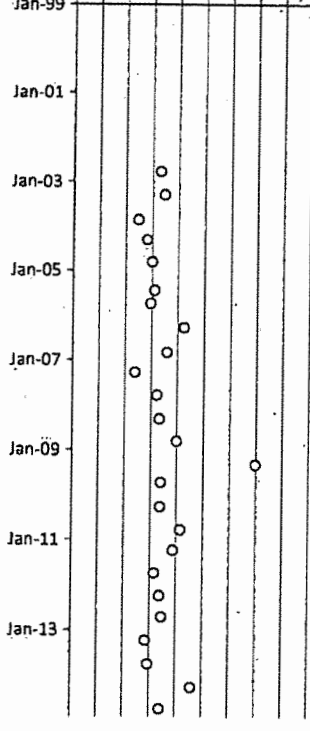
ASB - 1



ASB - 2



ASB - 3



ASB - 4

